

PRE-MED

Students pursuing a career in medicine, whether allopathic (M.D.) or osteopathic (D.O.), should take special care to prepare. While every medical school requires the completion of a four-year degree from an accredited institution, the premedical coursework requirements vary from school to school. Every medical school has unique requirements which may include coursework, laboratory, volunteer, and healthcare experiences. Each school determines their own list of required and recommended premedical coursework; some require successful completion of specific classes while others have progressed to competency-based admissions and some accept AP, online, and community college courses while others do not. Students are encouraged to review curriculum outlines for years 1 and 2 of the professional programs to which they intend to apply and are encouraged to enroll in coursework that provides foundational knowledge to support their success when planning electives to complete their academic plan.

Pre-Professional Advising: Many students at UMKC are interested in career paths in healthcare. For students who plan to enter professional schools after finishing their undergraduate degree, we offer a variety of workshops, seminars, and pre-professional advising. Students are encouraged to select a major that matches their interests and provides the foundation necessary for success in their professional curriculum.

Students interested in preparing for a career in medicine or other healthcare areas are encouraged to connect with a Pre-Professional Advisor early and often. Pre-professional programs can be found in RooGroups. Students with a declared plan of Pre-Medicine will find the Pre-Professional Health Advisor in their Success Network under "Your Connections" in UMKC Connect and can schedule appointments there. All other students can contact Roo Advising at 816-235-1148 or rooadvising@umkc.edu for more information or to schedule an appointment.

Common Required Courses:

Common requirements for most medical schools include the courses listed below. UMKC Courses that will universally fulfill the requirements are listed along with alternative options. It is the student's responsibility to ensure that any alternative options selected are acceptable for satisfaction of the requirements for the schools to which they intend to apply.

Code	Title	Credits
One Year of Biology:		
BIOLOGY 108 & 108L	General Biology I and General Biology I Laboratory	4
BIOLOGY 109 & 109L	General Biology II and General Biology II Laboratory	4
Alternative courses may include (NOTE: most schools require biology courses to be completed with a lab):		
BIOLOGY 202	Cell Biology	3
BIOLOGY 206	Genetics	3
BIOLOGY 218	Introductory Anatomy	3
NURSE/HLSC 120	Anatomy & Physiology I	4
NURSE/HLSC 160	Anatomy and Physiology II	4
Code		
Title		
Credits		
One Year of English:		
ENGLISH 110 & ENGLISH 225	Introduction to Academic Prose and English II: Intermediate Academic Prose	6
Alternative courses may include:		
English Composition I		3
Any Writing Intensive (WI) Course		3
Code		
Title		
Credits		
Two Years of Chemistry (through Organic Chemistry):		
NOTE: Most schools require chemistry courses to be completed with a lab.		
CHEM 211 & 211L	General Chemistry I and Experimental General Chemistry I	5
CHEM 212R & CHEM 212LR	General Chemistry II and Experimental General Chemistry II	5
Take one of the following groups:		
CHEM 320 & 320L	Elementary Organic Chemistry and Experimental Organic Chemistry	5
OR		

CHEM 321 & 321L AND	Organic Chemistry I and Organic Chemistry Laboratory I	4
CHEM 322R & CHEM 322L	Organic Chemistry II and Organic Chemistry Laboratory II	4
Code	Title	Credits
One Year of Physics:		
PHYSICS 210 & PHYSICS 220 OR	General Physics I and General Physics II	8
PHYSICS 240 & PHYSICS 250	Physics For Scientists and Engineers I and Physics For Scientists and Engineers II	10

Common Recommended Courses:

Students are encouraged to engage in academic or laboratory research opportunities as part of their preparation for medical school and related professions. Early exposure to scientific inquiry demonstrates interest and involvement in the creation of knowledge, improves critical thinking, and assists with writing and communication skills. Visit Undergraduate Research @ UMKC (<https://www.umkc.edu/searchsite/>) for more information.

The following courses are commonly recommended to students to ensure they have foundational knowledge in subjects that comprise curriculum in the first two years of the professional medical curriculum.

Code	Title	Credits
Science		
BIOLOGY 202	Cell Biology	3
BIOLOGY 206	Genetics	3
BIOLOGY 218	Introductory Anatomy	3
BIOLOGY 306	From Bench to Bedside: Translational Research	3
BIOLOGY 313	Microbiology	3
BIOLOGY 316	Principles of Physiology	3
BIOLOGY 319	Global Health: New and Emerging Infectious Diseases	3
BIOLOGY 328	Histology	3
BIOLOGY 409	Developmental Biology	3
BIOLOGY 435	Immunology	3
BIOLOGY 441	Biochemistry	3
HLSC/NURSE 120	Anatomy & Physiology I	4
HLSC 125	Medical Terminology	1
HLSC/NURSE 160	Anatomy and Physiology II	4
HLSC 410	Epidemiology	3
Code		
Title		
Credits		
Social Sciences		
ANTHRO 103	Introduction To Cultural Anthropology	3
HLSC 252	Human Growth and Development	3
HLSC 300	Diversity in Health	3
HLSC 404	Introduction to Social Justice	1
PBHL 158	Public Health Principles	3
PBHL 335	Historical and Contemporary Issues in Public Health	3
PBHL 358	Environmental Public Health	3
PSYCH 210	General Psychology	3
PSYCH 222	Child Psychology	3
PSYCH 433	Psychological Disorders	3

Code	Title	Credits
Humanities		
ART-HIST 110	Introduction to the History of Art: Pyramids to Picasso	3
COMM-ST 277	Interpersonal Communication	3
COMM-ST 344	Organizational Communication	3
ENGLISH 304WI	Professional and Technical Writing	3
PHILOS 210	Introduction to Philosophy	3
PHILOS 221	Contemporary Moral Issues	3
PHILOS 321	Ethics	3

Students can utilize PlanMyDegree (<https://planmydegree.umkc.edu/>) to plan common admission course requirements

Students can learn more about preparing for a career in medicine, including lists of U.S. and Canadian medical schools and their requirements through the Association of American Medical Colleges (AAMC) for allopathic programs and the American Association of Colleges of Osteopathic Medicine (AACOM) for osteopathic programs.

AAMC: <https://www.aamc.org/>

AACOM: <https://www.aacom.org/>

In addition to specific admission requirements, most medical schools require students to take either the Medical College Admission Test (MCAT) or the Graduate Record Exam (GRE) as a requirement for admission. Students can find more information about these exams, including subject components, scoring, and resources for preparation using the links below. Components of the MCAT may include subjects not included in required coursework for admission, including biochemistry, statistics, psychology and sociology. Students planning to take the MCAT are encouraged to complete coursework in the subject components to ensure they have a foundational understanding of the material for successful completion of the exam. Students preparing for the MCAT should consider applying for the Medical Scholars program.

MCAT: <https://students-residents.aamc.org/>

Medical Scholars (STAHR): <https://info.umkc.edu/stahr/scholars/mcat-prep/>

GRE: <https://www.ets.org/gre> (<https://www.ets.org/gre/>)

Students applying for professional schools of medicine do so through a centralized application service. Three such services are utilized for schools in the U.S. and Canada; the American Medical College Application Service (AMCAS), the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS), and for students applying to allopathic medical school in the state of Texas, the Texas Medical and Dental School Application Service (TMDSAS). Students can learn more about the centralized application services including requirements for personal statements, letters of evaluation, timelines and fee assistance programs through the links below.

AMCAS: <https://students-residents.aamc.org/applying-medical-school/applying-medical-school-process/applying-medical-school-amcas/>

AACOMAS: [https://www.aacom.org/become-a-doctor/how-to-apply-to-osteopathic-medical-college/](https://www.aacom.org/become-a-doctor/how-to-apply-to-osteopathic-medical-college)

TMDSAS: <https://www.tmdsas.com/>

Students interested in applying to the Doctor of Medicine (MD), Physician Assistant (PA) or Anesthesiologist Assistant (MSA) program through the UMKC School of Medicine are encouraged to visit their website to plan a visit, tour, and review programs and services including the early and guaranteed admission Medical Scholars, PA Scholars, and MSA Scholars Programs.

UMKC School of Medicine: <https://med.umkc.edu/admissions/>