DOCTOR OF PHARMACY

Doctor of Pharmacy Competencies

A pharmacist is a medication expert whose obligation is to deliver pharmaceutical care. Pharmaceutical care is “the responsible provision of drug therapy for the purpose of achieving a definite outcome that improves a patient’s quality of life” (Hepler and Strand). A pharmacist’s functions include, but are not limited to:

- Identifying, preventing and/or resolving drug-related problems.
- Preventing disease and promoting good health practices through rational drug therapy.
- Providing drug information to the public.
- Educating other health care professionals about appropriate drug therapies.
- Collaborating with other health care professionals to improve health outcomes, especially as they relate to the appropriate use of medications.
- Ensuring that medications are delivered to the patient in a safe manner.

Many practice areas are covered by these responsibilities. The curriculum is designed to develop the competencies of graduates, allowing them to assume these responsibilities as well as the all of the current curricular outcomes expected of Doctor of Pharmacy graduates detailed on the School of Pharmacy website under the Curriculum Policies and Procedures section at: http://pharmacy.umkc.edu/pharm-d/curriculum-and-registration/.

Admission Requirements

The doctor of pharmacy (Pharm.D.) degree provides minimum and advanced level competencies necessary for the graduate to assume a pharmacist’s professional responsibilities and qualify for national and state pharmacist licensure examinations. The program of study emphasizes clinical sciences and training experiences. The training of doctor of pharmacy students concentrates on rational drug therapy decision-making within the inter-professional health care team.

Doctor of Pharmacy Minimum Pre-Pharmacy Course Requirements

A minimum of 54 credit hours of pre-professional, college level coursework, including the specified requirements listed below, must be successfully completed, with a grade of C or higher, prior to the fall of the entering class year of the professional pharmacy program of study. In addition, an overall cumulative college grade-point average of no less than 2.75, on a 4.0 scale and a science/math grade-point average of no less than 2.5 on a 4.0 scale must be achieved on all college-level work completed through the end of the fall term preceding the year of entry to meet minimum eligibility requirements. Repeated course grades are averaged together in applicants overall cumulative and science/math grade point average calculations. Applicants should note that admission is competitive and that meeting the minimum requirements is not a guarantee of admission. NOTE: Students in the Early Assurance Program must have earned, at time of application, a cumulative college GPA of 3.25 or higher; a collegiate science/math GPA of 3.25 or higher; and a minimum PCAT composite of 40.

Equivalent, pre-pharmacy courses must be completed at UMKC or any regionally accredited college or university. Applicants should contact the UMKC Pharmacy Office of Student Affairs to insure proper course equivalents have been met. Second year college pre-pharmacy courses, listed below, must be successfully completed within five years prior to admission entry date. Applicants with elective space during their pre-pharmacy preparation should consider courses that shape their understanding of the human condition. Courses in psychology, sociology, ethics, and anthropology, will assist a student in assuming their role in caring for people. Completion of additional communication studies courses is also encouraged.

In addition to the courses below, a three credit hour (3.0) Statistics course will be required for students entering Fall 2022 forward.

Pre-Pharmacy Courses / Minimum Semester Hours

<table>
<thead>
<tr>
<th>Year</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>General Chemistry I &amp; II with Labs</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Calculus with Analytical Geometry</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>General Biology I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Physics with Lab</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>English Composition I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Public Speaking or Communication Studies Course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>American History I or II or Introduction to Political Science course covering U.S. Constitution</td>
<td>3</td>
</tr>
<tr>
<td>II</td>
<td>Organic Chemistry I &amp; II with Labs</td>
<td>8</td>
</tr>
</tbody>
</table>
Cell Biology\(^4\)  & 3  
Human Anatomy with Lab\(^{4,5}\)  & 4  
Microbiology with Lab\(^4\)  & 4  
Medical Terminology\(^4\)  & 1  
Statistics*  & 3  
Electives completed at student discretion  & 8  

Total Credits: 65

1. Calculus courses that are less than 4.0 credit hours or that do not include analytical geometry will not meet the minimum requirement.
2. Preparatory or introductory biology courses will not meet the minimum requirement.
3. Physics courses must be at least algebra and trigonometry based.
4. NOTE: Second year college pre-pharmacy courses must be successfully completed within five years prior to Fall admission entry date.
5. Successful completion of two semesters of Human Anatomy and Physiology with labs will meet the Human Anatomy requirement. Comparative or Vertebrate Anatomy courses will not meet the Human Anatomy requirement.

*In addition to the courses above, a three credit hour (3.0) Statistics course will be required for students entering Fall 2022 forward so the total pre-pharmacy credits will be 57.

General CLEP credits will not be accepted to fulfill the mathematics, biology, physics, or chemistry requirements. Advanced Placement Program scores through the College Board are accepted for some pre-pharmacy courses. Check acceptable scores and courses at [http://www.umkc.edu/registrar/transfer-credit/default.asp](http://www.umkc.edu/registrar/transfer-credit/default.asp). Contact an academic advisor in the School of Pharmacy regarding minimum score requirements and course transferability. Official scores from the College Board must be sent to the UMKC Records Office for evaluation.

### Early Assurance (EA) Program

UMKC School of Pharmacy offers an Early Assurance Program for high school students with a strong interest in and aptitude for science and math and excellent communication skills. Students who meet the EA criteria for admission from high school have an assured seat in the Pharm.D. program if the minimum specified requirements from EA to the Pharm.D. program are achieved during their collegiate freshmen and sophomore years at UMKC. The minimum eligibility criteria to apply for the EA program include 1) a non-weighted high school GPA at the end of the junior year of 3.5 or higher; or 2) a non-weighted high school GPA at the end of the junior year of 3.0 or higher and a minimum ACT composite of 25 or higher or SAT equivalent; and meet the UMKC core requirements through high school curricular units. Students wanting to apply for the EA Program must complete and submit the following: the on-line UMKC Application For Admission and fee; the on-line Early Assurance Application; official high school transcripts through semester six; official college transcripts as applicable; official ACT/SAT scores, as applicable; and one reference letter. The priority deadline for the EA program is March 1st.

Additional information regarding degree program and admission requirements is located on the UMKC School of Pharmacy Pharm.D. Admissions webpage located at [https://pharmacy.umkc.edu/pharm-d/](https://pharmacy.umkc.edu/pharm-d/). Applicants with questions regarding admission should contact:

UMKC School of Pharmacy  
Office of Student Affairs  
2464 Charlotte Street, Suite 1219 / Kansas City, MO / 64108  
(816) 235-1613/ Fax (816) 235-5562  
pharmacy@umkc.edu

### Application Procedures

Applications for the doctor of pharmacy program are accepted between July 15 through April 1 for consideration for admission to the class entering the following fall. Admission to the Doctor of Pharmacy program is competitive and meeting minimum requirements for admission does not guarantee admission. New students are admitted to the doctor of pharmacy program only in the fall of each year.

As part of the process for application to the Doctor of Pharmacy program, all of the application steps and instructions located within the applications must be adhered to carefully and all required documents must be submitted no later than the April 1st deadline, unless otherwise stated. Applicants must:

1. Complete and submit the PharmCAS application with all supporting and required documentation and fee. The PharmCAS application is located at [http://www.pharmcas.org/](http://www.pharmcas.org/). Official transcripts(s) from each college and/or university attended showing all coursework attempted and completed through the Fall term prior to admission entry date must be submitted to PharmCAS;
2. Submit recent, official scores from the Pharmacy College Admission Test (PCAT) to PharmCAS;
3. Submit an electronic PharmCAS reference from specified categories only as noted on the UMKC Doctor of Pharmacy application; references from relatives, friends, or co-workers will not be accepted.
4. Complete and submit a UMKC Doctor of Pharmacy Application for Admission, to include supplemental materials and application fee. The UMKC Pharm.D. Application for Admission is located at https://pharmacy.umkc.edu/pharm-d/;

5. Meet and adhere to the UMKC School of Pharmacy Minimal Technical Standards for Admission, Matriculation and Graduation as part of the Pharm.D. Application. The Standards are listed on the application, as well as at http://pharmacy.umkc.edu/pharm-d/policies/ on the School of Pharmacy website under the Policies and Procedures section. Students admitted to the Pharm.D. program must continue to meet and adhere to these standards throughout their tenure in the Pharm.D. program;

6. International applicants must complete the UMKC International Undergraduate Application for Admission (http://www.umkc.edu/isao/) in addition to the PharmCAS Application and the UMKC Doctor of Pharmacy Application. Copies of all materials submitted to the International Student Affairs Office must be sent to the Pharmacy Office of Student Affairs. The minimum TOEFL [Test of English as a Foreign Language] score required for Pharm.D. applicants is 560 [paper-based]; 220 [computer-based]; 83 [internet-based]. International applicants whose native language is not English or who received their education in a country where the first language is not English must
   a. Meet the UMKC English Proficiency requirements
   b. Complete the English Evaluation Examination prior to the first semester of enrollment
   c. Follow recommendations from the UMKC Applied Language Institute.

7. Complete a formal, structured interview, if selected, at the School of Pharmacy as a factor for admission. Applicants are notified by e-mail before their scheduled interview. Applicants should note that meeting minimum eligibility requirements does not automatically qualify an applicant for an interview. Based on the academic and application credentials of the applicant and the applicant pool, the school will select candidates for an interview. Students who do not qualify for the interview will receive written notice.

Notification of Acceptance

Admission to the Pharm.D. program is competitive. Applicants will receive written notification of the school’s decision concerning their applications.

Official supplementary college transcripts must be submitted to the Pharmacy Office of Student Affairs upon completion of winter/spring and summer coursework. Final acceptance is contingent on submission and clearance of a criminal background check, good academic and behavioral standing, successful completion (grade of C- or higher) of the specified minimum hours of required pre-pharmacy courses and any other coursework completed during the winter/spring and/or summer terms prior to admission. Those applicants approved for admission will be required to confirm their acceptance and submit an advance deposit to guarantee their place in the entering class. This deposit is applied to the first term’s educational fees and is not refundable. Admitted students are required to attend the School of Pharmacy orientation sessions.

Curricular Requirements

The doctor of pharmacy degree program provides broad and general preparation in professional areas of practice with the intent that, on completion, graduates will be able to practice at a level sufficient to perform the established functions of a pharmacist. In addition, the Pharm.D. program prepares the student for advanced levels of professional practice. The major emphasis is on the clinical sciences and drug-related patient care.

This program is designed to provide advanced education and training in clinical pharmacy and drug information with particular emphasis on interprofessional team participation in the delivery of health care. To enable students to concentrate solely on this advanced professional coursework, those entering the doctor of pharmacy program are strongly encouraged to limit their work and/or intern hours during the academic year.

Because pharmacy is a profession undergoing rapid change, the curriculum is subject to continual review and modification. As society’s needs for specific types of pharmaceutical service change, the curriculum will change as well. To assure the best pharmacy education for its students, the School of Pharmacy reserves the right of making judicious changes and improvements in course sequence, course content, or other program requirements at any time that must be completed and adhered to in order to meet graduation degree requirements.

Pharm.D. Graduation Requirements

To graduate, Pharm.D. candidates must successfully complete the 4 year curricular course requirements as listed in addition to the prerequisite course requirements.

To graduate, students must successfully complete all credit and non-credit requirements as listed and in effect at the time of completion. Within these hours, the following credit hour minimums must be met:

Pharm.D. Admission Prerequisites

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CHEM 211</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>&amp; 211L</td>
<td>and Experimental General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>MATH 210</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>BIOLOGY 108</td>
<td>General Biology I</td>
<td>3</td>
</tr>
<tr>
<td>ENGLISH 110</td>
<td>English I: Introduction To Academic Prose</td>
<td>3</td>
</tr>
</tbody>
</table>
**Student Learning Outcomes**

**Curricular Outcomes Expected of Doctor of Pharmacy Graduates**

Doctor of Pharmacy graduates must possess the basic knowledge, skills, attitudes, and values to independently practice pharmacy at the time of graduation. These Curricular Outcomes expectations are outlined in full on the UMKC School of Pharmacy website under the Curriculm Policies and Procedures section at: https://pharmacy.umkc.edu/current-students/curriculum-and-registration/.

### First Year

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>PHARM 7341</td>
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<td>3</td>
</tr>
<tr>
<td>LS-PHYS 399</td>
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<td>3</td>
</tr>
<tr>
<td>LS-BIOC 370</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>PHARM 7101</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>PHARM 7110</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

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1. Marked Science courses must be completed within five years of Pharm.D. program start date.
A minimum of eight credit hours of professional elective course work must be successfully completed prior to enrollment in Advanced Pharmacy Practice Experiences (APPE). Visit [http://pharmacy.umkc.edu/pharm-d/curriculum-and-registration/#main-content](http://pharmacy.umkc.edu/pharm-d/curriculum-and-registration/#main-content) under the Curriculum and Registration section and review the Guidelines for Electives and the list of potential professional elective offerings. Students should choose electives and semester placement after consultation with a pharmacy academic advisor in the Office of Student Affairs and/or their faculty advisor.

2 PHARM 7406P: General Medicine I is a continuous introductory pharmacy practice experience completed over both fall and spring semesters.

3 Students must complete 36 credit hours of Advanced Pharmacy Practice Experiences (APPE) over Semesters 6a-8. APPE prerequisites include satisfactory completion of all credit and non-credit degree and course requirements prior to Semester 6a of the professional curriculum.
Prospective Applicants are encouraged to:

• Visit http://pharmacy.umkc.edu to see equivalencies for schools in Missouri and Kansas to see how prerequisites will transfer to UMKC.
• Visit http://www.umkc.edu/registrar/transfer-credit/default.asp to review UMKC AP & IB course work minimums.