

Courses and Critical Benchmarks

Prerequisite plan for application to the Doctor of Pharmacy program.
 All prerequisites courses must be completed with a minimum grade of C-,
 however, A's and B's are expected in all prerequisites.
 Average GPA for students admitted to the Doctor of Pharmacy program is 3.5.


The following is a sample course of study. It is the student's responsibility to ensure that all program requirements are met. This guide is not a substitute for academic advisement. **All incoming freshmen must develop an academic plan (which maps out all courses needed to apply to the Doctor of Pharmacy program) with their academic advisor. Each student's plan will be tailored to their individual needs according to their previous academic work and their academic advisor's recommendation.**

Your path to graduation may vary slightly based on factors such as college credit you earned while in high school, transfer work from other institutions of higher learning and placement in Mathematics. You are responsible for checking prerequisites to any courses. Critical Courses and minimum recommended grades (as noted below) provide feedback regarding major fit and help indicate likelihood of successful completion of chosen academic program and degree.

First Math	MATH 110 College Algebra	Foreign Language Requirement	No	Free Elective Hours	0-6
------------	--------------------------	------------------------------	----	---------------------	-----

Critical Course or Benchmark	Course Subject, Number, and Title and Academic Plan Benchmarks Bold = UMKC General Education Core Requirement Prerequisite May Be Required - students should check the catalog *Co-Requisite Enrollment Required # - Required Pharm.D. Pre-Requirement	Min Recom Grade	Credit Hours (CH)	Notes
------------------------------	--	-----------------	-------------------	-------

Fall Semester Year 1: 15 - 19 hours

	#*Anchor I: Reasoning and Values http://www.umkc.edu/core/courses/		3	ALEKS Math Placement Exam is required for students without college credit for a math course. www.umkc.edu/mathplacement/
	#*DISC 100: Reasoning and Values (Speech and Writing)		3	
	*#CHEM 211: General Chemistry I (Focus B) OR CHEM 111: Physical Basis of Chemistry	B	3-4	Pre-pharmacy math requirement will be met by satisfactory completion of MATH 210 or MATH 216.
	*#CHEM 211L: Experimental Chemistry I		1	
	Focus A: Arts and Humanities Click here for options.		3	MATH 120 (5 hours) is MATH 110 (3 hours) & MATH 125 (2 hours), but in one semester. PHYSICS 210 prerequisite is satisfactorily completion of MATH 125 or MATH 210.
	MATH 100: Intermediate Algebra OR MATH 110: College Algebra (Focus Elective) OR MATH 125: Trigonometry OR MATH 120: Pre-Calculus OR #MATH 210: Calculus I (Focus Elective) OR MATH 216: Calculus for Biological Sciences (Focus Elective) OR #PHYSICS 210: General Physics I (includes lab) (Focus Elective)		2-5	

 Complete 12 term hours minimum toward prerequisites.

Spring Semester Year 1: 16 - 19 hours

	#*Anchor II: Culture and Diversity http://www.umkc.edu/core/courses/		3	Students completing the prerequisite courses in two years, should sign up for Pharmacy College Admission Test (PCAT) in Summer &/or early Fall.
	#*DISC 200: Culture and Diversity (Speech and Writing)		3	
	MATH 110: College Algebra (Focus Elective) OR		2-5	

	MATH 125: Trigonometry OR MATH 120: Pre-Calculus OR #MATH 210: Calculus I (Focus Elective) OR MATH 216: Calculus for Biological Sciences OR #PHYSICS 210: General Physics I (includes lab) (Focus Elective)			www.pcatweb.info Completion of DISC 100/Anchor 1 & Disc 200/Anchor 2 will satisfy the six hours of Writing requirements as well as the Public Speaking requirement.
◆	#*CHEM 212R: General Chemistry II OR #*CHEM 211: General Chemistry I	B	4	
◆	#*CHEM 212LR: Experimental General Chemistry II (Lab) OR #*CHEM 211L: Experimental General Chemistry I (Lab)	B	1	
	Focus C: Human Actions, Values, & Ethics #HISTORY 101, OR #HISTORY 102, OR #POL-SCI 210 strongly recommended. Click here for options.		3	HISTORY 101, 102, or POL-SCI 210 will also meet the MO Constitution course requirement.
◆	Complete Anchor I and DISC 100. Complete 12 <u>term</u> hours minimum and 30 total hours toward degree.			

Summer Semester Year 1: 0 hours if all previous courses completed

	May use summer semester to ensure completion of 30 hours per academic year or to lighten fall and spring course loads. If the appropriate prerequisites have been met, students may move on to specific third year courses.			
--	--	--	--	--

Fall Semester Year 2: 12-15 hours

	#*CHEM 321: Organic Chemistry I OR #*CHEM 212R: General Chemistry II		3	NOTE for Unit: Anchor III and DISC 300 not required in completing prerequisites Labs that are not required: BIOLOGY 108L BIOLOGY 109L It is normal to take BIOLOGY 109 before BIOLOGY 108. Other COMM-ST courses: COMM-ST 140 COMM-ST 312 COMM-ST 343
	#*CHEM 321L: Organic Chemistry Laboratory I OR #*CHEM 212LR: Experimental General Chemistry II (Lab)		1	
	MATH 125: Trigonometry OR MATH 120: Pre-Calculus OR #MATH 210: Calculus I (Focus Elective) OR MATH 216: Calculus for Biological Sciences (Focus Elective) OR #PHYSICS 210: General Physics I with Lab (Focus Elective)		2-5	
◆	BIOLOGY 102: Biology And Living (Focus Elective) OR #BIOLOGY 108: General Biology I (Focus Elective) OR #BIOLOGY 109: General Biology II (Focus Elective)	B	3	
	COMM-ST 110: Fundamentals Of Effective Speaking & Listening (course requirement is met with successful completion of DISC 100 and DISC 200) OR Free Elective is requirement already met.		3	
◆	Complete 12 <u>term</u> hours minimum toward graduation.			

Spring Semester Year 2: 14 - 15 hours

◆	#*CHEM 322R: Organic Chemistry II OR #*CHEM 321: Organic Chemistry I	B	3	RooWriter Assessment not required for prerequisites.
◆	#*CHEM 322L: Organic Chemistry Laboratory II OR #*CHEM 321L: Organic Chemistry Laboratory I	B	1	Students completing the prerequisite courses in three years, should sign up for Pharmacy College Admission
◆	#BIOLOGY 108: General Biology I (Focus Elective) OR	B	3	

UMKC Major Map: Pre-Pharmacy

First-Time College Students

Catalog Year: 2016 - 2017

▼	#BIOLOGY 109: General Biology II (Focus Elective)			Test (PCAT) in Summer &/or early Fall. www.pcatweb.info
	#MATH 210: Calculus I (Focus Elective) OR MATH 216: Calculus for Biological Sciences (Focus Elective) OR #PHYSICS 210: General Physics I w/lab (Focus Elective)		4-5	
	Missouri Constitution Requirement if not met above, click for options . OR Free Elective		3	

◆ Complete Anchor II and DISC 200.
Complete 12 term hours minimum and 60 total hours toward degree.

Summer Semester Year 2: 0 hours if all previous courses completed

Fall Semester Year 3: 12 hours

◆	#*CHEM 322R: Organic Chemistry II	B	3	Additional courses that are good for pre-pharmacy students to have: COMM-ST 140, COMM-ST 312, COMM-ST 343, PSYCH 210, SOCIOL 101, PHILOS 210, PHILOS 221, PHILOS 222, ECON 201, STAT 235, LS-PHYS 217.
◆	#*CHEM 322L: Organic Chemistry Laboratory II	B	1	
◆	#BIOLOGY 108: General Biology I (Focus Elective) OR #BIOLOGY 109: General Biology II (Focus Elective) OR #BIOLOGY 202: Cell Biology	B	3	
◆	#*LS-ANATO 218: Introductory Anatomy	B	3	
◆	#*LS-ANATO 218L: Introductory Anatomy Laboratory	B	2	

Spring Semester Year 3: 12 hours

◆	#*LS-MCRB 121: Human Biology III (Microbiology)	B	3	LS-MCRB 313/313L will meet the Microbiology requirement, but it is higher level.
◆	#*LS-MCRB 121L: Human Biology III (Microbiology) Lab	B	1	
◆	#BIOLOGY 202: Cell Biology	B	3	
	#PHYSICS 210: General Physics I (Focus Elective)		4	
	#NURSE 125: Medical Terminology		1	

Pre-pharm students should be working on a Bachelor's Degree in chosen program during the fourth year.

Graduation Requirements Summary

Total Degree Credit Hours	Upper Level (3xx/4xx) Hour Requirement	Minimum Hour / Residency Req.
54 Pre-Pharmacy	n/a	n/a
Major GPA	UM GPA	Other
2.75	2.0	203 total hours Pharm.D.
Other GPA Requirements		

Policy

The School reserves the right to make changes in courses, degree requirements and course schedules without notice.

Students are expected to maintain a quality of achievement significantly above minimum UMKC standards for degree work.

Individual student progress will be monitored throughout the program. Satisfactory progress is required of all students for retention in the program. Students are expected to maintain academic standards, perform satisfactorily in courses, refrain from academic dishonesty, comply with the established University and teacher education timetables and requirements, and refrain from unethical or unprofessional behavior or behaviors that obstruct the training process or threaten the welfare of the student or others. Other circumstances involving student behavior will be addressed by the faculty on an individual basis.

Program Description

The pre-pharmacy curriculum allows students to complete all prerequisite courses needed to apply to the Doctor of Pharmacy (Pharm.D.) program.

The plan of study provided above is for three years, but students may have a two year plan of study. Students may complete the requirements in two years, three years, or even earn a Bachelor's degree in a particular field at UMKC while completing the prerequisites.

The Pre-Pharmacy program is a plan of study leading toward Pharm.D. admission.

Admission Requirements

Minimum cumulative GPA of 2.75 and minimum science/math GPA of 2.5 is required to apply. Average GPA of those accepted is 3.5 for both. Students must take the Pharmacy College Admission Test (PCAT) before or during the application year. Pharmacy experience is strongly encouraged, although not required.

Repeated course grades are averaged together in students' overall cumulative and science/math GPA 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 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 or third year college pre-pharmacy courses, listed here, must be successfully completed within five years prior to admission entry date: CHEM 321/321L, CHEM 322R/322L, BIOL 202, LS-ANATO 118/118L, LS-MCRB 121/121L, NURSE 125.

Academic and Career Advising

The Doctor of Pharmacy degrees allows graduates to sit for licensure exams to be a practicing pharmacist. While there are hundreds of directions to go with the Pharm.D., the most common practices are Community or Independent Pharmacy Practice, Hospital, Federal or State Government, & Academia. Pharmacists who wish to specialize in an area of health care will complete a residency or fellowship upon graduation for an additional year of paid learning experience.

UMKC Career Services Resources: <http://www.career.umkc.edu/> O*Net OnLine: <http://www.onetonline.org/>
American Association of Colleges of Pharmacy: www.aacp.org/
American Pharmacists Association: www.pharmacist.com/apha-asp

UMKC School of Pharmacy, Office of Student Affairs
2464 Charlotte St. Health Sciences Building 1219, Kansas City, MO 64108
816-235-1613 pharmacy@umkc.edu <http://pharmacy.umkc.edu>

Shelly Janasz, M.S., Director, Student Affairs, janasz@umkc.edu

Shannon Vacek, Academic Advisor, vaceks@umkc.edu

Steve McDonald, M.A., Recruitment and Admissions Coordinator, mcdonalds@umkc.edu

Alyssa Collier, Senior Student Recruitment Specialist, Early Assurance, collieraly@umkc.edu