Required Pre-Pharmacy Courses

Course Transfer Sheet

Lindenwood University

The Doctor of Pharmacy (Pharm.D.) program requires satisfactory completion (grade of C- or higher) of all specific pre-pharmacy college course work before entry into the first semester of the program (UMKC only offers fall entry). Online courses will work.

Below are the courses that have been approved to transfer from Lindenwood University towards pre-pharmacy requirements. Admission to the Pharm.D. program is competitive, with college grades, Pharmacy College Admission Test (PCAT) scores, pharmacy experience, communication skills, and a formal interview being key determinants. A degree is not required for admission.

Note: Courses listed below meet the UMKC pre-pharmacy course requirements for the Pharm.D. program. These courses do not necessarily reflect what other programs at UMKC consider towards a Bachelor's degree.

REQUIRED COURSES	LINDENWOOD UNIVERSITY COURSES
English Composition I	ENGL 15000
English Composition II	ENGL 17000
Communication Studies	COM 10500 or 11000
U.S. History or American Government	HIST 11100 or HIST 11200 or HIST 15500
Calculus w/Analytical Geometry	MTH 27100
Statistics (Required for Fall 2022 Entry & Beyond)	MATH 14100
General Physics w/ lab	PHYS 25100
General Chemistry I w/ lab	CHM 23100/24100
General Chemistry II w/lab	CHM 23200/24200
General Biology I or Botany	BSC 24400 or 32000
General Biology II or Zoology	BSC 24800 or 32400 or 40800

The courses below must be taken within five years prior to the fall start of the Pharm.D. program:

Organic Chemistry I w/lab	CHM 36100
Organic Chemistry II w/lab	CHM 36200
Cell Biology	BSC 40400
Microbiology w/lab	BSC 23000 or 35300
Medical Terminology	AT 22000
Human Anatomy w/lab	BSC 22700 & 22800

Two semesters of A&P required for Human Anatomy

Optional – Successful completion of Biochemistry I & II may transfer into the Pharm.D. Curriculum

Pharmacy Biochemistry	CHM/BSC 42100 & 42200

- Please review your school's test credit policy regarding AP, IB, CLEP, etc.
- Transfer sheets for other local schools: https://pharmacy.umkc.edu/admissions/transfer-sheets.html.

School of Pharmacy Office of Student Affairs
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Additional Notes for UMKC Pre-Pharmacy Prerequisite Courses

Please contact staff from the Pharmacy Office of Student Affairs (POSA) with any questions you have.

-Online courses may count, and the POSA staff know of several online options for courses. Grades of P, Cr &/or S (Pass, Credit &/or Satisfactory) from the Spring & Summer 2020 semesters will suffice.

-If you took a marked course that is older than five years, and you believe your knowledge of the course is current based on courses taken since then within five years of admission or through your current job responsibilities, you can petition the old course to count. Contact POSA to inquire about the process and documentation needed.

-Courses that may transfer from foreign institutions: Physics with lab, Calculus, Statistics, General Chemistry 1 & 2 with labs, Organic Chemistry 1 with lab, or General Biology 1 & 2. All remaining courses must be completed from a regionally accredited college or university inside of the USA.

English Composition 1 & 2: Six hours are required. If a student takes an advanced composition course, or tests into Eng Comp 2, the student can take an additional writing course where 5,000 words or 20 written pages (usually noted as a 'Writing Intensive' course). Eng Comp 1 may be completed by earning a minimum required score on the AP Eng Language & Composition (minimum score requirements vary by institution). AP Eng Literature & Composition will not count.

Communication Studies can be complete by any course in the subject. Interpersonal communication, public speaking or small group dynamics are great examples.

U.S. Constitution can be complete by U.S. History 1 or 2, American Government, or a Bachelor's degree from inside of the USA.

Physics with lab should be a college-level, trig based (or higher) Physics course with lab.

Calculus with Analytical Geometry can be complete by Calculus courses that require trigonometry as a prerequisite. Business Calculus will not count, unless it is followed by an additional Business Calculus 2 course.

Statistics is required for students entering the Pharm.D. program in Fall 2022 and later and may be complete with an introduction to statistics or biostatistics course. If your major offers a statistics course, please send syllabus to POSA for review.

Organic Chemistry 1 & 2 with labs can be complete by a two-sequence organic chemistry with labs structure. Some schools offer a one 2.0 credit hour lab, while others offer two 1.0 credit hour labs. Either is fine.

General Biology 1 & 2 may be complete by any two of the following courses: general biology 1, general biology 2, zoology, botany, genetics, or human physiology. Labs are not required. Essentials of Biology or Biology for Non-majors do not count.

Cell Biology may be complete by a sophomore-level cell biology course that has general biology and general chemistry as a prerequisite. A lab is not required.

Microbiology with lab may be complete by a sophomore-level Microbiology course for future health professionals. Environmental Microbiology lecture & lab will not count.

Human Anatomy with lab may be complete by a human anatomy with lab course, or a five-hour human anatomy & physiology with lab course, or by a two-sequenced human anatomy & physiology 1 & 2 with labs structure.

Medical Terminology should be 1.0 credit hour or more. UMKC offers an online 1.0 hour course each semester.

Biochemistry 1 & 2 are not required for entry, and may be complete by two semesters of general biochemistry 1 & 2. Students who take introduction to biochemistry or biochemistry 1 and are looking for Biochem 2, the POSA knows of online options. Labs are not required. A 4.0 credit Biochemistry with lab course will not count. Students who complete an approved biochemistry 1 & 2 sequence may not have to take Pharmacy Biochemistry in their first semester of the Pharm.D. curriculum.