



Required Pre-Pharmacy Courses

Course Transfer Sheet

Tulsa Community College

Pharmacy is a great career in high demand! Students complete the Doctor of Pharmacy (Pharm.D.) program in four years in Kansas City, Columbia or Springfield following the Pre-Pharmacy courses.

Below are the Pre-Pharmacy courses approved to transfer from the [Tulsa Community College](#). Admission to the Pharm.D. program is competitive with college grades, pharmacy knowledge, 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

English Composition I
English Composition II
Communication Studies
U.S. Constitution or Bachelor's Degree

Calculus
Statistics
General Physics w/ lab

General Chemistry I w/ lab
General Chemistry II w/lab
General Biology I or Botany
General Biology II or Zoology

TULSA CC COURSES

ENGL 1113
ENGL 1213
COMM 113, 2053, 2073, 2103 or 2243
HIST 1483 or 1493 or POLS 113 or 2023

MATH 2523 or MATH 2114
MATH 2193 or PSYC 2223
PHYS 1114

CHEM 1315
CHEM 1415
BIOL 1404 or BIOL 1414
BIOL 1604 or BIOL 1424

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

Organic Chemistry I w/ lab	CHEM 2145
Organic Chemistry II w/ lab	CHEM 2245
Microbiology w/lab	BIOL 2164
Human Anatomy	BIOL 2134
Human Physiology	BIOL 2154
Medical Terminology	ALDH 1323

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- 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>.
 - All courses should be complete with C- or higher before Fall entry into the Pharm.D program.

Additional Notes for UMKC Pre-Pharmacy Prerequisite Courses

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

-Pharm.D. students are admitted to downtown Kansas City Health Sciences District or to the Mizzou campus in Columbia or to the Missouri State University Brick City campus.

-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, 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 Interpersonal communication, public speaking or small group dynamics are great examples.

U.S. Constitution complete by U.S. History 1 or 2, American Government, or a Bachelor's degree from U.S. school.

Physics with lab should be a college-level, trig based Physics course with lab.

Calculus can be complete by Business Calculus or Calculus w/ Analytical Geometry.

Statistics May be complete with an introduction to statistics or biostatistics course.

Organic Chemistry 1 & 2 with labs can be complete by six hours of Organic Chemistry lecture and two hours of lab. Some schools offer 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, cell biology, or human physiology. Labs are not required. Essentials of Biology or Biology for Non-majors do not count.

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

Medical Terminology only one hour required. UMKC offers an online 1.0 hour course each semester.

*Human Anatomy may be complete by a human anatomy lecture. Vertebrate or comparative anatomy will not count.

*Human Physiology or Cell Biology applicants entering the Pharm.D. program in 2025 or 2026 may take either Human Physiology (preferred) or a sophomore level Cell Biology course. Labs not required. Students entering 2027 or after must take Human Physiology.

*Anatomy & Physiology a six-hour A&P sequence will complete both Anatomy & Physiology requirements.

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.