

General Pre-Pharmacy Information

Pre-professional requirements for pharmacy are available through the College of Science and Technology. In general, students may fulfill one or two years at Southeast of the total six-year curriculum, then complete the training at a professional school. However, there are exceptions: the University of Tennessee has three years of pre-pharmacy, with a seven-year program. Although the first-year requirements at most pharmacy schools are similar, there are significant differences with some schools. Second-year requirements vary even more from school to school. Therefore, the student should be sure of his/her preferred school's requirements. The student should be aware that few, if any, pharmacy schools accept transfer students for the spring semester, so the student should plan his/her coursework accordingly.

Most pre-professional curricula place a strong emphasis on biology, chemistry and mathematics. Various other non-science courses are usually required, such as English and social science courses. Other courses, such as statistics, may be included. The student should use the specific requirements of the schools he/she would prefer to attend in planning a course of study.

FACULTY ADVISORS:

Dr. Bruce Hathaway, Dr. Jim McGill, Dr. Matt Fasnacht

CAREER OPPORTUNITIES:

Retail pharmacist; Hospital pharmacist; Clinical pharmacist; Industrial pharmacy; Pharmaceutical sales; Graduate study in pharmaceutical science (pharmacology, medicinal chemistry, physical pharmacy), chemistry or biology.

EMPLOYMENT OUTLOOK:

Excellent: consult advisor

HIGH SCHOOL PREPARATION FOR MAJOR:

Ideal: 4 units of English, 3 units of science (Biology, Chemistry, Physics), and Math through Trigonometry and Pre-Calculus.

S. DAVID NUNLEY SCHOLARSHIP

This is an endowed scholarship, with preference given to Pre-Pharmacy students. The minimum requirements are a GPA of 3.0 (on a 4 point scale) and demonstrated financial need.

Pre-Pharmacy students should consult with an advisor before enrolling.

Pre-Pharmacy Requirements for University of Missouri-Kansas City School of Pharmacy

Fall Semester			Spring Semester	
Course	Credit Hours		Course	Credit Hours
CH185 General Chemistry 1 (with CH085 and CH005)	5		PH120/020 Intro. Physics 1	5
Behavioral, Social Science, Humanities or Fine Art ²	3		CH186 General Chemistry 2	3
BI153 Intro. Organismal Bio. ³	4		CH187 Qualitative Analysis	2
EN100 English Composition	3		EN140 Rhet. & Crit. Thinking	3
			BI154 Genetics and Cell Biol.	4
Total Hours	15		Total Hours	17

Summer

Course	Credit Hours
MA140 Calc. & An. Geom. 1 ¹	5

Notes:

1. Students not ready for MA140 should recognize that MA090, MA095, MA133 and MA134 (or equivalents) will not count as transfer credit to Kansas City.
2. This includes courses such as speech communications, sociology, psychology, history, government, music, art, theatre, philosophy, foreign language, or economics. SC105, Fundamentals of Oral Communication, is recommended.
3. Students not ready for BI153 need to take BI151 and BI152 as pre-requisites.

Pre-Pharmacy Requirements for Southern Illinois University-Edwardsville

First Year

Fall Semester		Spring Semester	
Course	Credit Hours	Course	Credit Hours
SC105 or SC155 Speech	3	MA140 An. Geom. & Calc. 1	5
CH185 General Chemistry 1 (with CH085 and CH005)	5	CH186 General Chemistry 2	3
BI151 Biological Reasoning	3	CH187 Qualitative Analysis	2
BI152 Intro. Sci. Invest.	1	EN140 Rhet. & Crit. Think.	3
EN100 English Composition	3	BI153 Intro. Organismal Bio.	4
EC101 Econ Prob. & Pol.	3		
Total	18	Total	17

Summer

Course	Credit Hours
BS113 Anatomy and Physiology 1	4
BS114 Anatomy and Physiology 2	4

Second Year

Fall Semester		Spring Semester	
Course	Credit Hours	Course	Credit Hours
CH341 Organic Chemistry 1	4	CH343 Organic Chemistry 2	3
CH342 Organic Chem. 1 Lab	1	CH344 Organic Chem. 2 Lab	2
PH120/020 Intro. Physics 1	5	PH121/021 Intro. Physics 2	5
BO200 Plant Biology	3	LI2xx Literature, or any Art or Music (not performance)	3
PL110 or PI120 Philosophy	3	PY102 or PS240 or PY101 or SO102 or SO200	3
Total	16	Total	16

Pre-Pharmacy Requirements for the University of Tennessee⁴

First Year of Pre-Pharmacy

Fall semester			Spring Semester	
Course	Credit Hours		Course	Credit Hours
EN100 English Comp.	3		EN140 Rhet. & Crit. Thinking	3
CH185 General Chemistry 1 (with CH085 and CH005)	5		CH186 General Chemistry 2	3
			CH187 Qualitative Analysis	2
BI151 Biological Reasoning	3		BI153 Intro. Organismal Biol.	4
BI152 Intro. Sci. Investigation	1		SC105 Fund. Oral Comm.	3
Humanities/Soc. Sci. elective ¹	3			
Total	15			15

Second Year of Pre-Pharmacy

Fall semester			Spring Semester	
Course	Credit Hours		Course	Credit Hours
CH341 Organic Chemistry 1	4		CH343 Organic Chemistry 2	3
CH342 Organic Laboratory 1	1		CH344 Organic Laboratory 2	2
BS113 Anat. & Physiol. 1	4		BS114 Anat. & Physiol. 2	4
MA139 Applied Calculus ³	3		Humanities/Soc. Sci. elective ¹	3
BI154 Genetics and Cell Biol.	4		Statistics (MA223 or PY271)	3
Total	16			15

Third Year of Pre-Pharmacy

Fall semester			Spring Semester	
Course	Credit Hours		Course	Credit Hours
CH531 Biochemistry 1	3		CH533 Biochemistry 2	2
BI200 General Microbiology	3		BI442 Immunology	3
PH120/020 Intro. Physics 1	5		Electives ²	8
Humanities/Soc. Sci. elective ¹	3		Humanities/Soc. Sci. elective ¹	3
Total	14			16

Notes:

1. Six hours of Humanities electives are required. These must be from Literature, Language, History, or Philosophy. Six hours of Social Science electives are required. These must be from Psychology, Sociology, Economics, Anthropology, or Political Science.
2. The remaining elective courses, totaling a minimum of 8 semester hours, may be taken in any area the student desires (sciences, mathematics, humanities or social sciences); however the following courses will not be accepted in fulfillment of pre-pharmacy curriculum requirements: ROTC, participatory PE/sports, or musical performance courses (such as choir or band, etc.). Students unsure whether a particular course will be accepted by the College should contact Mr. T. Jeff Bogue III at jbogue@utm.edu at the earliest opportunity.
3. Any pre-calculus math courses you need to take do not count for transfer credit to the University of Tennessee.
4. The University of Tennessee requires three years of pre-pharmacy courses, and four years at the pharmacy school, so there is a total of seven years to obtain the Doctor of Pharmacy degree.

Pre-Pharmacy Requirements for St. Louis College of Pharmacy

First Year

Fall Semester			Spring Semester	
Course	Credit Hours		Course	Credit Hours
CH185 General Chemistry I (with CH085 and CH005)	5		CH186 General Chemistry 2	3
BI151 Biological Reasoning	3		CH187 Qualitative Analysis	2
BI152 Intro. Sci. Invest.	1		EN140 Rhet. & Crit. Thinking	3
EN100 English Comp.	3		BI153 Intro. Organismal Biol.	4
PY101 Psy. Per. Hum. Beh.	3		MA139 Applied Calculus	3
Total	15		Total	15

Summer

Course	Credit Hours
BS113 Anatomy and Physiology 1	4

Second Year

Fall Semester			Spring Semester	
Course	Credit Hours		Course	Credit Hours
CH341 Organic Chemistry 1	4		CH343 Organic Chemistry 2	3
CH342 Organic Chem. 1 Lab	1		CH344 Organic Chem. 2 Lab	2
PH120/020 Intro. Physics 1	5		PH121/021 Intro. Physics 2	5
BS114 Anatomy and Physiology 2	4		SO102 Soc. Cult. & Beh.	3
WH101 Early. Eur. History	3		WH103 Mod. Eur. Civ.	3
Total	17		Total	16

Pre-Pharmacy Requirements for the University of Mississippi (Ole Miss)

First Year of Pre-Pharmacy

Fall Semester			Spring Semester	
Course	Credit Hours		Course	Credit Hours
EN100 English Comp.	3		EN140 Rhet. & Crit. Thinking	3
CH185 General Chemistry 1 (with CH085 and CH005)	5		CH186 General Chemistry 2	3
BI151 Biological Reasoning	3		CH187 Qualitative Analysis	2
BI152 Intro Sci. Invest.	1		BI153 Intro. Organismal Biology	4
AD101 Intro. Microcomp. Appl.	3		SC105 Fund. Oral Comm.	3
Non-professional Elective*	3		MA139 Applied Calculus	3
Total	18		Total	18

Summer

Course	Credit Hours
Non-professional Elective*	6

Second Year of Pre-Pharmacy

Fall Semester			Spring Semester	
Course	Credit Hours		Course	Credit Hours
CH341 Organic Chemistry 1	4		CH343 Organic Chemistry 2	3
CH342 Organic Laboratory 1	1		CH344 Organic Laboratory 2	2
BI154 Genetics and Cell Biol.	4		BI200 General Microbiology	3
BS332 Human Physiology	3		BI381 Molecular Genetics	3
Non-professional Elective*	3		Non-professional Elective*	3
			MA223 or PY271 Statistics	3
Total	15		Total	17

Third Year of Pre-Pharmacy

Fall Semester			Spring Semester	
Course	Credit Hours		Course	Credit Hours
CH531/UI331 Biochemistry 1	3		BI543 Pathogenic Microbiology	2
BI404 Cell Biology	3		BI544 Pathogenic Microbiology Lab	1
BI442 Immunology	3		PH121/021 Intro. Physics 2	5
PH120/020 Intro. Physics 1	5		EC215 Microeconomics	3
			BI300 Intro. Evolutionary Biology	3
Total	14		Total	14

* The 15 hours of “Non-professional electives” must include 6 hours of Social or Behavioral Sciences (Psychology, Sociology, Anthropology, Political Science, and Economics), as well as 9 hours of Humanities (History, Religion, Language, Philosophy, and Literature) and Fine Arts (Theatre Appreciation, Music Appreciation, Art Appreciation, or any Performing Arts). The 9 hours of Humanities and Fine Arts must have 3 hours in Humanities and 3 hours in Fine Arts - the remaining 3 hours can be a Humanities course or a Fine Arts course; it’s up to you.

The Biology courses are placed where they are in the curriculum, since the early ones are often prerequisites for the later ones, and some courses are not offered every semester. Similarly, the Chemistry courses must be taken in the indicated sequence. It is worth noting that if you also took ZO331, BI489, and BI4xx (Experiential Learning), you would have all of the Biology courses needed for a BS in Biology, Biomedical Sciences Option.