



# SMU PRE-HEALTH PROFESSIONS

## Suggested Pre-Pharmacy Plan

*Note: Some science courses may be completed in summer terms.*



Individual program requirements may change at any time, and this plan may not reflect the most current information. It is the student's responsibility to review, understand, follow, and remain [up-to-date](#) with the policies, guidelines, and requirements (including prerequisite coursework) of each individual pharmacy program and the application service [PharmCAS](#).

This plan could vary depending on the major chosen. Consult your academic advisor and check individual degree plans for suggested sequencing of courses. **Grades of C (not C-) or better** are required to meet specific science (and math) prerequisites for admission to pharmacy school. **Consult with your advisor before advancing to the next level course.** Combined science and math prerequisites include courses coded as biology, chemistry, physics, and math (including statistics). **The Pharmacy College Admission Test (PCAT®) was retired on January 10, 2024.** No PCAT testing dates will be offered during the 2024–2025 admissions cycle or beyond.

### 1<sup>st</sup> Year Fall

CHEM	1303	General Chemistry I
CHEM	1113	General Chemistry I Lab
BIOL	1301	Introductory Biology I
BIOL	1101	Introductory Biology I Lab
WRTR	1312	Introduction to Academic Writing
MATH	1337	Calculus

### 1<sup>st</sup> Year Spring

CHEM	1304	General Chemistry II
CHEM	1114	General Chemistry I Lab
BIOL	1302	Introductory Biology I
BIOL	1102	Introductory Biology I Lab
WRTR	1313	Writing and Critical Reasoning
STAT	2331	Statistics

### 2<sup>nd</sup> Year Fall

BIOL	3304	Genetics
CHEM	3371	Organic Chemistry I
CHEM	3117	Organic Chemistry I Lab
BIOL	2441	Anatomy & Physiology I (non-majors/biology)
PHYS	1307	General Physics I
PHYS	1105	General Physics I Lab


### 2<sup>nd</sup> Year Spring

BIOL	3350	Cell Biology
CHEM	3372	Organic Chemistry II
CHEM	3118	Organic Chemistry II Lab
BIOL	2442	Anatomy & Physiology II (non-majors/biology)
PSYC	1300	Introduction to Psychology

### 3<sup>rd</sup> Year Fall

BIOL	4310	Biochemistry
BIOL	4376	Microbiology
BIOL	3176	Microbiology Lab
BIOL	4306	Human Anatomy with Physiology (Biology majors)
BIOL	3106	Physiology Lab (Biology majors)

### 3<sup>rd</sup> Year Spring

	Apply in July	
BIOL	4364	Integrated Human Physiology with Endocrinology (Biology majors)
BIOL	4164	Functional Anatomy & Histology Lab (Biology majors)

Students can choose any major; however, courses offered in Biology, Chemistry, or Biochemistry majors provide the best preparation for pharmacy school. Additional recommended or required courses include **Biochemistry II, Economics (macro or micro), Social/Behavioral Science (sociology, psychology, anthropology, etc.), Public Speaking/Communication, and Medical Terminology.** Medical Terminology is not offered at SMU. A few programs require 8-credit hours of Physics. **Review program websites or the [Prerequisite Summary](#) for additional prerequisite information.**

SMU offers two additional courses that are recommended for students pursuing pharmacy: **PSYC 4321** (Behavioral Action of Drugs) and **CHEM 5398** (Medicinal Chemistry). Review the course catalog for any prerequisites required for each course.

Pre-calculus (MATH 1304) may be required prior to calculus (MATH 1337). Statistics can be moved to a later semester to better accommodate a student's schedule. Pre-pharmacy students may incorporate study abroad in their college plan, usually before Year 3 or during the summer. Meet with your academic advisor and plan ahead.

BIOL 4306, BIOL 3106, BIOL 4364, and BIOL 4164 are the Human Anatomy & Physiology courses offered in the Biology Department and meet the requirements for the biology major. Non-majors (biology) can enroll in BIOL 2441/2442 in Simmons. Requirements for individual pharmacy programs may vary. Most programs accept A&P I/II or separate Human Anatomy & Physiology courses. Review individual program websites for the most up-to-date information.



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Students may complete PHYS 1303/1105 instead of PHYS 1307/1105. **Physics can be moved to a later semester to better accommodate a student's schedule.**

Students pursuing the B.S. in Biological Sciences are required to complete additional coursework, including Biochemistry (BIOL 5310) and Physics II (PHYS 1308) plus lab (PHYS 1106). **Note: MATH 1338 is a prerequisite (or co-requisite) for PHYS 1304.** Consult with your academic advisor for requirements to complete the degree.

***It is the student's responsibility to understand the specific requirements for individual programs.*** Some pharmacy programs strongly recommend or require observation/shadowing hours. Refer to individual programs for the required (or recommended) number of healthcare experiences (HCE) - including observation. Consult with individual programs for specific documentation requirements for observation hours.

Working as a pharmacy tech is excellent experience for students interested in the pharmacy profession and demonstrates interest in the profession. Many pharmacy programs also require a minimum number of community service hours.

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Students apply to pharmacy school using a centralized application service, **PharmCAS**, which opens in July each year. Meet with the Pre-Health Director by the end of your 2<sup>nd</sup> year to review the application timeline.

### **Important Steps for Pre-Pharmacy Students**

1. Compile a list of programs and review requirements
2. Review the prerequisite course summary and individual program websites
3. Complete prerequisite courses
4. Gain clinical experience and volunteer in the community
5. Get to know professors to request letters of recommendation
6. Apply using PharmCAS (early applications are encouraged)

### **Application Timeline**

1. PharmCAS application opens in July (*review priority, regular/final deadlines*)
2. Request letters of recommendation
3. Submit application and supplemental material
4. Complete the Spring Academic Update, as required by programs
5. Prepare for interviews (usually October – February but some regular application deadlines may be later)

### **Resources**

<https://www.pharmcas.org/>  
<https://www.pharmcas.org/application-instructions/verification-and-gpas>  
<https://www.pharmcas.org/application-instructions/before-you-apply>  
<https://www.pharmcas.org/sites/default/files/2020-11/virtual-interviews.pdf>