

# Pharmacy

Pharmacists provide pharmaceutical care to millions in patient-centered, outcome-driven settings. As a member of the total health care management team, the pharmacist is uniquely qualified and positioned to positively impact patient outcomes. With thousands of prescriptions and over-the-counter drugs being sold in the U.S., the pharmacy has evolved into a consultation center where patients learn more about their medications and ways to increase safety and effectiveness of treatments. Providing excellent care is further challenged by the fact that many patients take a variety of drugs and see several health care specialists, placing the pharmacist in the critical position to monitor and advise both patients and physicians.

Pharmacists work in a wide range of settings. While 42% of pharmacists work in community pharmacies, 58% work in hospitals, pharmaceutical companies, nursing homes, government agencies, universities, and other settings.<sup>1</sup> The American Pharmacists Association provides Career Option Profiles which discuss not only the characteristics of each career setting, but also provide survey results from pharmacists about working conditions and duties.<sup>2</sup>

According to the U.S. Bureau of Labor Statistics, employment of pharmacists is expected to grow 2% between 2021 and 2031, which is slower than the average for all occupations. Median wages of pharmacists in May 2021 was \$128,570, with the top 10% earning over \$164,590 and the lowest 10% earning less than \$76,840. Demand is projected to increase for pharmacists in some healthcare settings, including hospitals and clinics. These facilities will need more pharmacists to oversee the medications given to patients and to provide direct patient care, performing tasks such as testing a patient's blood sugar or cholesterol. Higher rates of chronic diseases, such as diabetes and high blood pressure, among all age groups will also lead to demand for prescription medications. In addition, scientific advances will lead to new drug products. Employment of pharmacists in some traditional retail settings, like grocery stores, is projected to decline slightly as mail order and online pharmacy sales increase. The number of pharmacy schools has grown in recent years, creating more pharmacy school graduates and therefore more competition for jobs. Students who choose to complete a residency program gain additional experience that may improve their job prospects. Certification from the [Board of Pharmacy Specialties](#) or as a [Certified Diabetes Educator](#) may also be viewed favorably by employers.<sup>3</sup>

**Other Items of Importance.** Pharmacy schools are looking for people of good character who enjoy helping others and who possess the intellectual curiosity to excel in a challenging curriculum. Participate in community service projects and get involved in causes that you care about. Consider working on a research project while you are an undergraduate; check with your academic advisor or favorite professors. Gain leadership experience through student activities, work, and community involvement. Some students study abroad or participate in internships with the government, nonprofits, or corporations. Plan your undergrad time wisely and you will be prepared for handling the rigors of professional school. Throughout your studies at A&M, take advantage of the programs and services provided by Professional School Advising, including workshops, one-on-one advising, listserv announcements, visits with pharmacy schools, and professional development opportunities. The Texas A&M Pre-Pharmacy Society is an excellent organization for pre-pharmacy students to be around like-minded students and continue to learn about the field of pharmacy.

---

<sup>1</sup> Pharmacists for Healthier Lives [pharmacistsforhealthierlives.org](https://pharmacistsforhealthierlives.org) (visited October 21, 2022).

<sup>2</sup> American Pharmacists Association [www.pharmacist.com/career-option-profiles](https://www.pharmacist.com/career-option-profiles) (visited October 21, 2022). You will find comprehensive surveys of various pharmacy fields, including job satisfaction and working conditions. Also, examine [pharmacyforme.org/career-pathways/](https://pharmacyforme.org/career-pathways/)

<sup>3</sup> Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Pharmacists, on the Internet at [www.bls.gov/ooh/healthcare/pharmacists.htm](https://www.bls.gov/ooh/healthcare/pharmacists.htm) (visited October 21, 2022).

**Confirming your Career in Pharmacy.** As with any career choice, applicants should confirm their decision to become a pharmacist through personal experience in addition to research. Such experience ranges from shadowing a pharmacist, working in a pharmacy, participating in related research, and learning more about different fields. Keep track of all experience (date, location, description) because some schools request a listing when you apply or matriculate. Working in a pharmacy as a Certified Pharmacy Technician (CPhT) is a great way to obtain long-term exposure to the daily life of pharmacist. In Texas, you may apply for a Pharmacy Technician Trainee license at the Texas State Board of Pharmacy. This will allow you to work in a pharmacy training program for up to two years. To become a CPht without attending a formal education program, you will need 500-1200 hours of pharmacy experience before taking the exam through PTCB or NHA. Pharm techs typically earn competitive wages while working part-time and gaining valuable experience. Additionally, some shadowing and internship programs require you have your PharmTech trainee certification in order to participate. You should gain certification as soon as possible so that you are able to participate in activities.

**Applying to Pharmacy School.** Applications for pharmacy school are done through PharmCAS, an online national service. Currently schools accept applications from July through the spring, with some accepting applications until June. However, prepared applicants are better served to apply by a priority date to their top schools. OPSA hosts application workshops to assist you in creating your application strategy and gaining admission. In addition to the application, you will typically need two or three evaluators, so begin developing relationships with professors soon.

### **Web Resources**

American Association of Colleges of Pharmacy (AACP)

[www.aacp.org](http://www.aacp.org)

American Pharmacists Association

[www.pharmacist.com](http://www.pharmacist.com)

Board of Pharmacy Specialties

[www.bpsweb.org](http://www.bpsweb.org)

Office of Professional School Advising

[opsa.tamu.edu](http://opsa.tamu.edu)

Pharmacy Application Service (PharmCAS)

[www.pharmacas.org](http://www.pharmacas.org)

Pharmacy Is Right For Me

[pharmacyforme.org](http://pharmacyforme.org)

Pharmacists For Healthier Lives

[pharmacistsforhealthierlives.org](http://pharmacistsforhealthierlives.org)

Texas A&M Pre-Pharmacy Society

[Aggieprepharm.wixsite.com](http://Aggieprepharm.wixsite.com)

Texas State Board of Pharmacy

[www.tsbp.state.tx.us](http://www.tsbp.state.tx.us)

Pharmacy Technician Certification Board

[www.ptcb.org](http://www.ptcb.org)

National Health Career Association

[www.nhanow.com](http://www.nhanow.com)

The Association of Former Students Find An Aggie

[tx.ag/FindanAggie](http://tx.ag/FindanAggie)

**Prerequisites.** Although a college degree is not typically required, approximately 40% of PharmD students enter with at least a bachelor's degree., and some schools 'prefer' those with a degree. Pharmacy schools do not require a specific major. Most students select majors which include the science prerequisites and which provide an alternate career choice. The [PharmCAS School Directory](#) is updated in late June/early July each year in preparation for the application cycle, which opens in mid-July. You can find all pharmacy school prerequisites and additional information.

The following courses should fulfill pharmacy prerequisites at all nine Texas pharmacy schools, as well as many schools in other states. There are slight differences between the schools' requirements. For instance, some schools only require six hours of English and some do not require Public Speaking. Also, some schools do not require Anatomy/Physiology or Genetics, but some require both. Additionally, some schools will accept a larger list of courses than is posted here. Applicants should check with individual schools they are considering to ensure that they complete the correct course work and/or request a waiver or substitution for that school. If you take these courses at another college or university, you should also check with pharmacy schools to ensure that the course will satisfy the pharmacy school.

Required Course	Texas A&M course(s)	
General Biology	Biol 111 & 112	8
General Chemistry	Chem 119 & 120	8
Organic Chemistry	Chem 227/237 & 228/238	8
Physics	Phys 201	4
Microbiology	Biol 351 or VTPB 405	4
Anatomy & Physiology	Biol 319 & 320 *	8
Genetics	Gene 301 or 320	3
Calculus	Math 147, 151 or 171	4
Statistics	Stat 201, 211, 301, 302, or 303**	3
English	Engl 103 & 104, and one sophomore lit class ***	9
Public Speaking	Comm 203	3
Texas Core Curriculum	Complete (Science, Math and Communication included in courses listed above)	21
		83

**UTEP requires one semester of Spanish or placement credit for Spanish 101.**

**UHCOP requires PBSI 107 or SOCI 205, which can be selected for Core Curriculum Social and Behavioral Sciences requirement.**

**UIW requires a Philosophy, which can be selected for your Core Curriculum Language, Philosophy and Culture requirement.**

\* Some schools will accept VIBS 305 and VTPP 423, but it is your responsibility to check

\*\* You must check with individual schools if you took psychology statistics or business statistics or other statistics course.

\*\*\* If you do not have Engl 103, schools may substitute another English course, such as 203 or 210, or a second literature course. Some schools only require 104 and a lit class.

### **Pharmacy Schools in Texas** Texas currently has nine pharmacy schools with 13 locations

<b>Texas A&amp;M University</b> - Kingsville and College Station Irma Lerma Rangel College of Pharmacy	pharmacy.tamhsc.edu
<b>Texas Southern University</b> - Houston College of Pharmacy and Health Sciences	tsu.edu/academics/colleges-and-schools/college-of-pharmacy-and-health-sciences/
<b>Texas Tech University HSC</b> - Abilene, Amarillo, Dallas and Lubbock Jerry H. Hodge School of Pharmacy	www.ttuhsc.edu/pharmacy
<b>The University of Texas at Austin</b> College of Pharmacy	pharmacy.utexas.edu
<b>The University of Texas at El Paso</b> School of Pharmacy	www.utep.edu/pharmacy
<b>The University of Texas at Tyler</b> Ben and Maytee Fisch College of Pharmacy	www.uttyler.edu/pharmacy
<b>University of Houston</b> College of Pharmacy	www.uh.edu/pharmacy
<b>University of North Texas Health Science Center – Fort Worth</b> College of Pharmacy	www.unthsc.edu/college-pf-pharmacy
<b>University of the Incarnate Word</b> - San Antonio Feik School of Pharmacy	pharmacy.uiw.edu

#### **Professional School Advising**

209 John J. Koldus Building  
1233 TAMU  
College Station, TX 77843-1233

Tel. 979.847.8938  
opsa@tamu.edu  
opsa.tamu.edu

Revised: 3/27/24 SV & kws