



PRE-PHARMACY INFORMATION SUMMARY

Academic Preparation

Academic preparation for Pharmacy school requires a Bachelor’s degree and completion of a set of prerequisite classes, usually science, which vary from school to school. Common classes are listed on the last page of this summary. For your degree, any major is appropriate. There is no preference in this regard, so study something you love! Competitive applicants have high grades so pace yourself in order to succeed, and remember that all grades will count when you apply even if you repeat classes.

Why Pharmacy?

Shadowing Pharmacists

This should be one of your first experiences as a PrePharmacy student. Observing pharmacists working in different environments in action will help you understand the profession. Shadowing also help you get to know pharmacists as many pharmacy schools require at least one recommendation letter from a pharmacist. **Competitive applicants shadow pharmacists in various settings more than 50 hrs.**

Pharmacy Experiences

Interacting well with sick people is one of the key indicators of a successful healthcare provider. Your experience can take a variety of forms. Pharmacy technician is best but experience as an MA, CNA, EMT, or in another role can also be useful.

EXTRACURRICULAR ACTIVITIES

As a pharmacist, you need to demonstrate various attributes and competencies, such as compassion, commitment to service, strong leadership and communication skills. The following activities will enhance your application.

▪ **Service to the Community**

Interacting with people coming from different backgrounds than your own will strengthen your interpersonal skills and communication skills. Experiences from high school do not count. Find various opportunities at the <https://www.umsl.edu/studentinvolvement/index.html>

▪ **Leadership Experience**

Examples includes offices held in organizations, committee work; leadership in church activities; coordinating a project; managing, training, supervising at work or in other activities; teaching experience of any kind; peer counseling or mentoring, etc.

Things to Remember

- Make sure you have contact information for supervisors and health professionals you shadow or work with, in case you need to have them write recommendation letters. Even if you discontinue an activity, try to keep an open relationship with them.
- Keep a record of all hours of service and experiences. Writing your reflections in a journal will be helpful when you write a personal statement.

❖ APPLICATION TIMELINE

	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept
PCAT	Registration opens in March for July, Sept. & Jan. dates, and Oct. for Oct. & Nov. dates. Scores are available within 3-4 weeks after the exam.																
Recom. Letters	Request letters & get contact info. from letter writers																
Application	PharmCAS available online during the 1 st week of July. Deadlines range from October-May																
Financial Aid	Priority filing for federal financial aid																

❖ PCAT

Many US pharmacy programs require the **PCAT**, though what constitutes a competitive score varies widely between programs. You must check with each pharmacy school for details on the specifics of their program.

- The PCAT is administered in July, September, October or November and January. Taking the exam by spring will enable you to apply earlier. November is the last PCAT accepted by most schools for the following fall's entering class.
- It usually takes about 3-5 weeks to get the result, but an expedited score is available for an additional fee.
- It is recommended PCAT be taken within a year of your planned application, but the score is good for 5 years.
- The PCAT is divided into 6 multiple choice sections and 1 essay. The multiple-choice sections include: Verbal Ability, Biology, Chemistry, Quantitative Ability, and Reading Comprehension. The score is reported as a scaled score between 200-600 and as a percentile between 1-99%. The essay will test problem solving skills, and skills dealing with conventions of language, and will be given a score from 1-6.
- The exam may be repeated, but the best strategy is to prepare thoroughly and take the PCAT once. For more information about the PCAT, visit <http://pcatweb.info/>.

❖ APPLICATION PROCESS

Your application process begins in spring or summer before you hope to begin your pharmacy program if you have completed the necessary requirements. Pharmacy programs admit students once a year for fall matriculation. You may need to take the PCAT (Pharmacy College Admission Test) or complete a bachelor's degree, or both, depending on each program's requirements.

❖ PharmCAS (Pharmacy College Application Service)

Most of the PharmD programs in the US are part of **PharmCAS**, which is available at www.pharmcas.org.

- Application requirements include transcripts, personal background information, extracurricular experiences (20 activities + 24 work experiences, 175 character limits per entry), personal statement (2400 character limit), and fees.
- Because many schools use a "rolling" admission process (they begin reviewing applications and admitting before deadlines), it will enhance your chances if you **submit your application early** no matter when you take the PCAT.
- Completing the application will take at least 1 week; most students take several weeks. Make sure you will have plenty of time to fill out the application, and to have somebody **review** your entire application before you submit.

To help us advise other students, we would appreciate it if you would release your information to the Health Professions Advisor. This information will always be kept confidential.

❖ LETTERS OF RECOMMENDATION

Once a pharmacy school receives your initial application, they will usually request supplementary material, including **Letters of Recommendation**. To facilitate this, most students use the free PharmCAS Letter Service.

Types of letters you need

Generally, you will need one letter from each of the following people. (The number and types of letters vary depending on each program. PharmCAS limits applicants to a maximum of 3 letters:

1. **Pharmacist, supervisor, or other healthcare professional**
2. **Professor (Usually Science)**

❖ **PRE-PHARMACY GENERAL POLICIES REGARDING COURSEWORK**

CLEP Credit, Correspondence Study & AP Credits & IB courses	You are required to report all of the courses and credit hours that you earned. However, those credits may not be acceptable as part of the prerequisite courses. Check each program's requirements section online.
Online Courses	Depend on programs. Ask schools you consider applying to directly.
Community College Courses	While many schools accept prerequisite courses taken at a 2 year community college, students are encouraged to take some courses at a 4 year institution.
Withdrawals	W's or EX's should be used only for non-academic emergencies, though W's or EX's will not affect GPA.
Repeats	PharmCAS will calculate all grades including repeated courses into your GPA.
Minimum Grade Requirement	Most schools set a minimum grade requirement for prerequisite courses of C or better.
GPA	Minimum requirements for Total GPA range from 2.5 - 3.0. Many pharmacy programs also look at prerequisite GPA separately. However competitive applicants admitted to Pharmacy programs generally have 3.5 or higher Total GPA depending on the program.
Grade Expiration	Many programs require certain prerequisite courses to be completed within 5 to 7 years before matriculation to a pharmacy school. Check each program's requirements section for more information.

❖ **USEFUL WEBSITES**

- American Association of Colleges of Pharmacy (<http://www.aacp.org>)
- SIUE School of Pharmacy <https://www.siue.edu/pharmacy/admission/pre-pharmacy-curriculum.shtml>
- University of Health Sciences and Pharmacy <https://www.uhsp.edu/admissions/professional/index.html>
- University of Missouri- Kansas City School of Pharmacy <https://pharmacy.umkc.edu/admissions/index.html>

Prepharm Course Guide

This guide is designed for applying to a *range* of medical schools. **It is not a comprehensive list.** Requirements may vary by school.

[Some classes may be taken at a Community College. However, not all medical schools accept prerequisites from 2-year schools]

*Most medical schools require that you have at least 90 hours of college coursework completed. Included in the 90 hours should be the following classes. These classes are the most common required classes for medical schools:

- **English 1100:** *First-Year Writing*
- **English 3100 or 3160:** *Junior-Level Writing or Writing in the Sciences*
- **Biol 1131:** *Human Physiology and Anatomy I*
- **Biol 1141:** *Human Physiology and Anatomy II*
- **Biol 1821:** *Introductory Biology: Organisms and the Environment*
- **Biol 1831:** *Introductory Biology: From Molecules to Organisms*
- **Biol 2482:** *Microbiology*
- **Biol 2483:** *Microbiology Lab*
- **Chem 1111:** *Introductory Chemistry I*
- **Chem 1121:** *Introductory Chemistry II*
- **Chem 2612:** *Organic Chemistry I*

- **Chem 2622:** *Organic Chemistry II*
- **Chem 2633:** *Organic Chemistry Laboratory*
- **Physics 1011&L:** *Basic Physics I and Lab*
- **Physics 1012&L:** *Basic Physics II and Lab*

The following aren't usually required, but are highly recommended for the PCAT:

- **Psych 1003:** *General Psychology*
- **Soc 1010:** *Introduction to Sociology*
- **Econ 1001:** *Microeconomics*
- **Econ 1002:** *Macroeconomics*

The following may be required by some pharmacy schools:

- **Math 1800:** *Analytic Geometry and Calculus I*
- **Math 1320:** *Introduction to Probability and Statistics*

Sample plan:

*this plan assumes that a student has completed College Algebra and Trigonometry or tested into Calculus. this plan only applies to pre-pharm classes. You should consult your major advisor for any other major requirements.

Semester 1 – 16 hours	Semester 2 – 16 hours	Semester 3 – 14 hours
<ul style="list-style-type: none"> • English 1100 (3) • Math 1800 (5) • Biol 1821 (5) • Sociology (3) 	<ul style="list-style-type: none"> • Biol 1831 (5) • Chem 1111 (5) • Psych 1003 (3) • Math 1320 (3) 	<ul style="list-style-type: none"> • Chem 1121 (5) • Biol 2482 (3) • Biol 2482 (3) • English 3100 (3)
Semester 4 – 14 hours	Semester 5 – 16 hours	
<ul style="list-style-type: none"> • Chem 2612 (3) • Physics 1011 (4) • Biol 1131 (4) • Econ 1001 (3) 	<ul style="list-style-type: none"> • Chem 2622 (3) • Chem 2633 (2) • Biol 1141 (4) • Physics 1012 (4) • Econ 1002 (3) 	