



What is the Pre-Pharmacy Program?

The Pre-Pharmacy Program is a 60-credit associate's degree program designed to fulfill the major requirements at most pharmacy schools. Students can customize their program to take specific requirements needed at their chosen pharmacy school and move directly from the community college to a graduate pharmacy school, earning a doctorate in as little as five years. Pharmacy school typically takes three to four years to complete and pre-pharmacy courses take two to three years.

Pre-pharmacy students must be prepared to take on an academically rigorous program of study that includes challenging coursework in biology, chemistry, and mathematics. Acceptance into pharmacy school is highly competitive. Grades and admission test scores play a large role in determining whether students are admitted to a pharmacy school program.

What types of jobs do pharmacists do?

Pharmacists work in a variety of organizations including hospitals, retail pharmacies, and government organizations. A large number of pharmacists work in retail pharmacy providing direct pharmaceutical care to retail patients. This care can include filling prescriptions, but can also include providing vaccinations and counseling on how to properly use medications.

Many pharmacists work in hospital or institutional settings either in a central pharmacy or by working directly with nursing staff to improve patient care. Institutional specialties include emergency care, intensive care, oncology, and long-term care for the elderly.

Pharmacists who work for the government or in the pharmaceutical industry help to ensure that a reliable supply of medicines are provided to the public.

What do pharmacists earn?

According to the U.S. Bureau of Labor Statistics, the average salary for a pharmacist was \$111,570 in 2010. Pharmacy was also selected by U.S. News and World Report as the third best job in the magazine's "Top 100 Jobs of 2012" list (source: www.bls.gov/ooh).

What is the employment outlook for this career?

According to the Occupational Outlook Handbook, the pharmacy field is expected to grow by 25 percent over the years 2010-2020, which is faster than the average for all occupations. With an increase in the number of pharmacy schools over the last twenty years, students should be aware that they may have to relocate to find employment (source: www.bls.gov/ooh).

What do students need to know before applying to pharmacy school?

Students should understand that competitive admission means that they must strive to earn good grades and learn as much as possible in the classroom. Program faculty recommend that students find part-time work in a pharmacy or 'shadow' a pharmacist on the job to make sure they want to pursue this career. Students are required to take an admission exam (PCAT-Pharmacy College Admission Test) prior to applying for pharmacy school, usually after the first year of classes are completed, and must complete the prerequisites required for the school to which they're transferring. Information on specific school prerequisites can be found online at www.pharmcas.org/collegesschools/schoolpages.htm.

Why choose HCC?

HCC offers one of the most cost-effective, pre-pharmacy programs in the tri-state region. Pharmacy school can be expensive (e.g., approximate annual tuition at University of Maryland is \$11,000; \$29,320 at

Shenandoah University, and \$10,400 at West Virginia University), so it's important to save money when pursuing one's pre-pharmacy curriculum. (Please note that financial aid is available for most students once accepted to pharmacy school.)

HCC features small, student-focused classes that are held in the college's state-of-the-art Science, Technology, Engineering and Math (STEM) Building and an extremely high acceptance rate for students entering pharmacy school following their pre-pharmacy studies at HCC.

A.S. Degree

Option in Pre-Pharmacy

The pre-pharmacy option is designed for students interested in attending pharmacy school at a graduate institution. This program provides the general education and science course work necessary for acceptance to pharmacy school upon receiving adequate Pharmacy College Admission Test (PCAT) scores. Students will be required to learn the specific course requirements for the schools they wish to attend. Specific school requirements can be found through the Pharmacy College Application Service at www.pharmcas.org/collegesschools/start.htm.

General Education Requirements 33 credits Arts/Humanities

Select two courses in different disciplines from approved General Education course list..... 6

Behavioral/Social Sciences

Select two courses in different disciplines from approved General Education course list..... 6

Biological/Physical Science

CHM 103 General Chemistry I..... 4
CHM 104 General Chemistry II..... 4

Diversity

Select one course from the approved General Education course list..... 3
(Recommended elective—HUM 214 World Religions)

English

ENG 101 English Composition 3
ENG 102 Composition and Literature..... 3

OR

SPD 103 Public Speaking.....(3)

Mathematics

MAT 203 Calculus I..... 4

Program Requirements 16 credits

BIO 205 Microbiology 4
CHM 203 Organic Chemistry I..... 4
CHM 204 Organic Chemistry II 4
PHY 201 General Physics I..... 4

Restricted Electives 8-9 credits

Select 8-9 credits from the course list below.

BIO 101	General Biology I.....	4
OR		
BIO 113	Principles of Biology I.....	(4)
BIO 102	General Biology II.....	4
OR		
BIO 114	Principles of Biology II.....	(4)
BIO 103	Human Anatomy and Physiology I ...	4
BIO 104	Human Anatomy and Physiology II ..	4
ECO 202	Microeconomic Principles.....	3
MAT 109	Introduction to Statistics.....	3
PHY 202	General Physics II.....	4
SPD 103	Public Speaking.....	3

Recommended Electives 3 credits

Some recommended courses are listed below:

PHL 101	Introduction to Philosophy.....	3
PHL 103	Ethics.....	3
HUM 214	World Religions.....	3
BIO 201	Cell Biology and Genetics.....	4
MAT 110	Statistics in Practice.....	1
MAT 161	Precalculus.....	4

Degree Requirement.....60

Recommended Two-Year Program Completion Plan

Please note that many students will require three years to complete the program requirements for their chosen school of pharmacy. Learning the background material and earning high grades is important to assure success on the Pharmacy College Admission Test (PCAT) exam and to gain acceptance to pharmacy school. More information about the requirements for specific pharmacy schools can be found at www.pharmcas.org.

Semester I—Fall

CHM 103	General Chemistry I.....	4
BIO 101	General Biology I.....	4
MAT 203	Calculus.....	4

Free elective

Choose an elective course from the Humanities, Social Sciences, or English disciplines.....(3)

Semester II—Spring

CHM 104	General Chemistry II.....	4
BIO 205	Microbiology.....	4
OR		
BIO 103	Anatomy and Physiology I.....	4
MAT 109	Introduction to Statistics.....	4

Free elective

Choose an elective course from the Humanities, Social Sciences, or English disciplines.....(3)

Summer I

Students who plan to attend pharmacy school following their second year of study should begin the process of preparing to take the PCAT after completing their first year of study (summer or fall). More information about the PCAT can be found at www.pcatweb.info. The approximate cost of the exam is \$199, and students must sign up in advance of the exam date.

During their first summer of study, students should also begin choosing a pharmacy school and prepare to submit an application. Applications must typically be made in the fall one year prior to when the student hopes to attend. Most pharmacy

school applications are done through Pharmcas, a universal pharmacy college application available online at www.pharmcas.org

Students should review the specific guidelines for pharmacy schools they hope to attend. Many students will find that they need to take one or two additional courses to meet the requirements of the schools of their choice.

Semester III—Fall

CHM 203	Organic Chemistry I.....	4
PHY 201	General Physics I.....	4

Biology

Take one of the following three courses:

BIO 103	Anatomy and Physiology I.....	(4)
BIO 104	Anatomy and Physiology II.....	(4)
BIO 205	Microbiology.....	(4)

Free elective

Choose an elective course from the Humanities, Social Sciences, or English disciplines.....(3)

Semester IV—Spring

CHM 204	Organic Chemistry II.....	4
---------	---------------------------	---

Biology

Take one of the following four courses:

BIO 103	Anatomy and Physiology I.....	(4)
BIO 104	Anatomy and Physiology II.....	(4)

Free elective

Choose an elective course from the Humanities, Social Sciences, or English disciplines.....(3)

BIO 201	Cell Biology and Genetics.....	(4)
BIO 205	Microbiology.....	(4)

Summer II

Finish any additional courses required for program completion and entrance into pharmacy school.

Contact Information:

Dr. Kristen Lennon
Instructor, Biology
240-500-2429

kalennon@hagerstowncc.edu

Robin Thomas
Administrative Office Associate
240-500-2268

rethomas@hagerstowncc.edu