

# PREPARATION FOR THE STUDY OF PHARMACY

## Important general information

Students interested in the pre-pharmacy advising track must complete the necessary prerequisites for pharmacy school. The minimum credit requirement varies for each pharmacy school. VCU requires a total minimum of 73 semester hours, however many students earn a baccalaureate degree before entering the program. Students interested in pharmacy school should consult with a pre-professional health adviser to learn about requirements that are specific to the schools of pharmacy to which they hope to apply.

Declaration of the pre-pharmacy advising track through the Office of Pre-Professional Health Advising does not constitute admission to the VCU School of Pharmacy. Students must apply separately to the pharmacy school of their choice at the appropriate time.

Students with an interest in preparing for pharmacy school must declare an academic major and should declare and maintain their pre-pharmacy advising track. Students do not earn a pre-pharmacy degree. Those unsure of their academic majors initially should clarify their academic interests through regular conversations with their advisers. Pre-pharmacy students are encouraged to major in fields of greatest interest to them. To declare a pre-pharmacy advising track, please see the **pre-professional health advising blog**.

## Prerequisites for the VCU Pharm.D. program

Students must complete the minimum 73 semester hours of course work and the required science courses to be eligible to start the Pharm.D. program at VCU. However, most students complete their bachelor's degree prior to enrollment into the Pharm.D. program. Students are also required to complete the Pharmacy College Admission Test. The PCAT is taken prior to students applying to pharmacy school and results are weighed heavily in admissions decisions. Students preparing for the PCAT are strongly advised to take courses to build competency in these areas prior to taking the exam. It is not necessary to have completed all prerequisite course work or to have taken the PCAT prior to submitting your application to pharmacy school. However, you must complete all prerequisite courses and take the PCAT before entering VCU's pharmacy program.

## Science and non-science courses required for the VCU Pharm.D. program

General biology, general chemistry, organic chemistry, physics, human anatomy, human physiology, microbiology and biochemistry are required science prerequisites for admission to the VCU Pharm.D. program.

Students must also complete English composition, calculus, statistics and speech as non-science prerequisites for the VCU Pharm.D. program.

VCU's School of Pharmacy also requires the completion of elective credits that can be taken as part of the general education and major requirements in the selected degree program. Due to the importance of a strong biomedical science foundation for success in the Pharm.D. program, some or all of these courses are highly recommended: genetics, molecular biology, immunology and cell biology. Any of these four courses will count toward elective credit. Other highly recommended

elective choices are computer science, economics, business, history, foreign languages, philosophy, political science and sociology.

The following prerequisite courses must be completed prior to admission for students entering in the fall semester. Advanced Placement tests of the College Board and/or International Baccalaureate courses will not be accepted for science prerequisites other than physics, although higher-level courses in the same subject area may be substituted (e.g., physical chemistry for general chemistry). AP/IB credit in physics, calculus, statistics, English and general elective courses will be accepted with a minimum score of 3 for AP or 4 for IB.

## Prerequisites for VCU's Pharm.D. program

Course	Title	Hours
BIOL 151 & BIOZ 151	Introduction to Biological Sciences I and Introduction to Biological Science Laboratory I	4
BIOL 152 & BIOZ 152	Introduction to Biological Sciences II and Introduction to Biological Science Laboratory II	4
BIOL 205	Basic Human Anatomy	4
BIOL 303	Microbiology	3
CHEM 101 & CHEZ 101	General Chemistry I and General Chemistry Laboratory I	4
CHEM 102 & CHEZ 102	General Chemistry II and General Chemistry Laboratory II	4
CHEM 301 & CHEZ 301	Organic Chemistry and Organic Chemistry Laboratory I	5
CHEM 302 & CHEZ 302	Organic Chemistry and Organic Chemistry Laboratory II	5
CHEM 403	Biochemistry I	3
MATH 200	Calculus with Analytic Geometry I	4
PHIS 206	Human Physiology	3
PHYS 201 or PHYS 207	General Physics I University Physics I	4-5
SPCH 121 or SPCH 321	Effective Speech Speech for Business and the Professions	3
STAT 210	Basic Practice of Statistics	3
UNIV 111 Play course video for Focused Inquiry I	Focused Inquiry I	3
UNIV 112 Play course video for Focused Inquiry II	Focused Inquiry II	3
Additional electives <sup>1</sup>		14
Total Hours		73-74

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Due to the importance of a strong biomedical science foundation in the Pharm.D. program, some or all of these courses are highly recommended: genetics, molecular biology, immunology and cell biology. Any of these four courses will count toward the minimum of 14 semester hours of electives. All other general electives must be non-math and non-science courses. Recommended elective choices are computer science, economics, business, history, foreign languages, philosophy, political science and sociology. The 14 semester hours of non-math/non-science electives will be considered fulfilled if an applicant provides an official

transcript documenting the completion of his or her baccalaureate degree prior to enrollment in the Pharm.D. program.

### **Additional recommended prerequisites for pharmacy schools nationwide**

Pharm.D. programs across the U.S. have different prerequisites for admission. The list below shows courses required by various schools beyond the courses listed above for the VCU Pharm.D. program requirements. Students should discuss career plans with their pre-professional health adviser for additional guidance.

<b>Course</b>	<b>Title</b>	<b>Hours</b>
BIOZ 303	Microbiology Laboratory	2
ECON 210	Principles of Microeconomics	3
or ECON 211	Principles of Macroeconomics	
PHIL 201	Critical Thinking About Moral Problems	3
PHIZ 206	Human Physiology Laboratory	1
PSYC 101 Play course video for Introduction to Psychology	Introduction to Psychology	4
SOCY 101 Play course video for Introduction to Sociology	Introduction to Sociology	3

Additional arts and humanities/social and behavioral sciences course work

Students should also consult with their pre-professional health advisers to discuss an individual plan of study in parallel with their academic majors.