

PRE-PHARMACY, MINOR IN

The pre-pharmacy minor provides foundational courses for students that are preparing to be competitive applicants for Doctor of Pharmacy (Pharm.D.) programs after completing their bachelor's degree at VCU. The pre-pharmacy minor can be completed as a part of any undergraduate degree. Completing this minor does not guarantee admission into any pharmacy program. This minor is structured to academically prepare students to apply for pharmacy school broadly. Clinical and non-clinical experiences are a requirement of application to most pharmacy schools. In addition to this minor, students should participate in clinical and non-clinical experiences to develop a competitive application for pharmacy school. Visit the VCU Career Services - Pre-Professional Health Career Advising (<https://careers.vcu.edu/majors-and-careers/career-pathways/health-care/>) website for more information and to schedule an appointment with a pre-professional health and STEM career counselor.

Pharmacy schools across the U.S. have different prerequisites for admission. The list below shows courses that may be required by various schools including the VCU School of Pharmacy. It is always recommended that you visit each program's webpage and/or attend an information session to obtain requirements for specific programs. Students are encouraged to meet with their academic adviser to integrate these courses into their academic plan. In addition, students are encouraged to discuss career plans with their pre-professional health academic minor adviser and career counselor for additional guidance.

For the pre-pharmacy minor, a minimum of nine credits in upper-level science (300-level or higher) courses must be taken at VCU. All upper-level science courses at a 300-level or higher listed in this minor are strongly recommended to be completed at VCU. It is encouraged to demonstrate future academic success in pharmacy school through a rigorous course schedule. Pharmacy schools may prefer students complete these courses at a four-year institution in order to demonstrate future academic success in pharmacy school course work.

Declaring the pre-pharmacy minor

To declare the pre-pharmacy minor:

- Students must complete a minimum of 12 credit hours to be eligible to declare the minor.
- Students must obtain a minimum cumulative VCU GPA of 3.0
- Students must complete BIOL 151 and BIOZ 151 with minimum grades of C

Maintaining the pre-pharmacy minor (progression policy)

- Students must maintain a minimum 3.0 VCU cumulative GPA.
 - If a student's VCU cumulative GPA drops below 3.0, they will be placed on probation in the minor and allowed one semester to raise their cumulative GPA to 3.0 – provided it is mathematically possible to do so. If it is not mathematically possible to do so, or if the student fails to raise their minimum cumulative GPA to 3.0 during their probationary semester, they will be removed from the pre-pharmacy minor and can re-declare the minor once eligible. Students are strongly encouraged to meet with their minor adviser to discuss their academic plans/progress.

- Students cannot exceed more than three attempts of any course within the minor including withdrawals and historical repeat attempts. If a student exceeds three attempts for any course within the minor, they will not be eligible to maintain and graduate with the minor.

Required courses

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 300	Cellular and Molecular Biology	3
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 ¹	4
PHIS 206	Human Physiology	3
PHYS 201 or PHYS 207	General Physics I University Physics I	4-5
STAT 210	Basic Practice of Statistics	3
Total Hours		53-54

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MATH 151 or a satisfactory score on the VCU Math Placement Test is a prerequisite for MATH 200

Additional recommended courses and information

Pharmacy schools across the U.S. have different prerequisites for admission. Students should discuss career plans with a pre-professional health career counselor for additional guidance. If the 300-level science course requirements have been completed, students are encouraged to continue taking upper-level science courses to demonstrate academic rigor and success. The list below shows courses required by various pharmacy schools beyond the courses listed above for the pre-pharmacy minor. Completing courses from the list below will not contribute to the pre-pharmacy minor requirements.

Course	Title	Hours
BIOL 310	Genetics	3
BIOL 455	Immunology	3
BIOZ 303	Microbiology Laboratory	2
ECON 210 or ECON 211	Principles of Microeconomics Principles of Macroeconomics	3
PHIL 201	Introduction to Ethics	3
PHYS 202	General Physics II	4-5

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or PHYS 208	University Physics II	
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
SPCH 121	Effective Speech	3
UNIV 191	Student Success Special Topics	1-3