

## PRE-MEDICINE, MINOR IN

The pre-medicine minor provides foundational courses for students that are preparing to be competitive applicants for Doctor of Medicine (M.D.) and Doctor of Osteopathic Medicine (D.O.) programs after completing their bachelor's degree at VCU. The pre-medicine minor can be completed as a part of any undergraduate degree. Completing this minor does not guarantee admission into any medical program. This minor is structured to academically prepare students to apply for medical school broadly. Clinical and non-clinical experiences are a requirement of application to most medical schools. In addition to this minor, students should participate in clinical and non-clinical experiences to develop a competitive application for medical 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.

Medical 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 Medicine. It is always recommended that a student visit each program's webpages 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-medicine minor, a minimum of nine credits in upper-level science (300-level or higher) courses must be taken at VCU. It is strongly recommended that all upper-level courses at a 300-level or higher listed in this minor be completed at VCU. It is encouraged to demonstrate future academic success in medical school through a rigorous course schedule. Medical schools may prefer students complete these courses at a four-year institution in order to demonstrate future academic success in medical school coursework.

### Declaring the pre-medicine minor

To declare the pre-medicine 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-medicine 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-medicine 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
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
MATH 151	Precalculus Mathematics	4
or MATH 200	Calculus with Analytic Geometry I	
PHYS 201	General Physics I <sup>1</sup>	4-5
or PHYS 207	University Physics I	
PHYS 202	General Physics II <sup>2</sup>	4-5
or PHYS 208	University Physics II	
STAT 210	Basic Practice of Statistics	3
Select courses from the following 300-level or higher science elective options to complete nine credits: <sup>3</sup>		9
BIOL 300	Cellular and Molecular Biology	
or BIOL 303	Microbiology	
or BIOL 310	Genetics	
or CHEM 403	Biochemistry I	
<b>Total Hours</b>		<b>50-52</b>

1

MATH 200 is a prerequisite for PHYS 207.

2

MATH 201 is a prerequisite for PHYS 208.

3

Recommended upper-level science electives include biochemistry, cellular and molecular biology, microbiology and genetics. Based on course equivalencies for transfer students, additional upper-level courses may be needed.

### Additional recommended courses and information

Medical 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 pre-medicine minor

upper-level science course requirements have been completed, students are encouraged to complete additional upper-level science courses to demonstrate academic rigor and success. The list below shows courses required by various medical schools beyond the courses listed above for the pre-medicine minor. Completing courses from the list below will not contribute to the pre-medicine minor requirements.

<b>Course</b>	<b>Title</b>	<b>Hours</b>
MATH 200	Calculus with Analytic Geometry I	4
PHIL 201	Introduction to Ethics	3
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
UNIV 191	Student Success Special Topics	1-3