

# PREPARATION FOR THE STUDY OF MEDICINE

## Important general information

Students interested in the pre-medicine career advising track must obtain a bachelor's degree and complete the necessary prerequisites for medical school. All prerequisites should be completed or on track to be complete prior to medical school matriculation. Best results occur when all prerequisite courses have been taken and grades are available at the time of application. Students interested in medical school should consult with a pre-professional health career adviser to learn about requirements that are specific to the schools of medicine to which they hope to apply.

Declaration of a pre-medical career advising track through VCU Career Services - Pre-Professional Health Career Advising (<https://careers.vcu.edu/majors-and-careers/career-pathways/health-care/>) does not constitute admission to the VCU School of Medicine. Students must apply separately to the medical school of their choice at the appropriate time.

Students with an interest in preparing for medical school must declare an academic major and should declare and maintain their pre-medical career advising track. Students do not earn a pre-medical degree. Students unsure of their academic majors initially should clarify their academic interests through regular conversations with their primary/major academic adviser and pre-professional health career advisers. Pre-medical students are encouraged to major in fields of greatest interest to them. To declare a pre-medicine career advising track, see the Pre-Professional Health Hub (<https://viriniacommonwealth.instructure.com/enroll/YNNNJ7/>).

Beyond curricular requirements, students must obtain additional experiences to be a competitive applicant for the VCU School of Medicine. Successful applicants have an average of 200 hours of clinical exposure, interacting with both physicians (>60 hours) and patients. Non-clinical community service that demonstrates their passion for serving others over an extended amount of time is required; 200 hours is the average. Students should be knowledgeable about how their clinical exposure and community service has impacted their motivation to study medicine and be successful in the classroom. It is also helpful to the applicant but not mandatory to have research and leadership experience.

## Prerequisites for the VCU School of Medicine

The American Association of Medical Colleges recommends students gain a core set of competencies in preparation for the Medical College Admissions Test. The MCAT is taken prior to students applying to medical school and results are weighed heavily in admissions decisions. Best results on the MCAT occur when all prerequisites have been taken prior to sitting for the MCAT exam. Please see the AAMC website (<https://www.aamc.org/>) for more information regarding MCAT content.

## Science and non-science prerequisite courses required for the VCU School of Medicine

Science prerequisite course work that students must complete for VCU School of Medicine are general biology, general chemistry, organic chemistry and physics (eight credits each). Another upper-level biological science course is also required. Courses include but are limited to biochemistry, cell biology, anatomy, embryology, genetics, microbiology, molecular biology, immunology or neuroscience.

In addition to the prerequisites listed above, VCU's School of Medicine requires pre-medical students to take two semesters of English composition and two semesters of mathematics (general statistics can count as one semester). All students also must have clinical exposure to physicians and patients and must have community-based nonclinical community service.

The VCU School of Medicine does not require introductory psychology or sociology as prerequisites, but they are highly recommended. Biochemistry, introductory psychology and introductory sociology are topics covered on the MCAT and are prerequisites for some medical schools.

VCU's School of Medicine does accept AP and CLEP credit to meet pre-medical course requirements if these are documented on an official transcript. Please note that lab credit will still be required and applicants may meet lab credit with the lab sections of advanced science courses or practical experience, such as documented relevant experience in a research lab.

## Additional resources

VCU offers an introduction to medicine course (offered as a topic under UNIV 291) every spring semester, which is focused on the VCU medical school application process with insight into medical career choices. Students should see their academic adviser for additional details.

For more information about the VCU School of Medicine (<https://medschool.vcu.edu/>), visit their website.

## Prerequisites for the VCU School of Medicine

| 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 electives (upper-level) <sup>1</sup>        |   | 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 or CHEM 403                  | Organic Chemistry and Organic Chemistry Laboratory II<br>Biochemistry I                     | 5     |
| MATH 151   | Precalculus Mathematics   | 4     |
| PHYS 201 or PHYS 207                             | General Physics I <sup>2</sup><br>University Physics I                                      | 4-5   |
| PHYS 202 or PHYS 208                             | General Physics II <sup>3</sup><br>University Physics II                                    | 4-5   |
| STAT 210   | Basic Practice of Statistics  | 3     |
| UNIV 111 Play course video for Focused Inquiry I | Focused Inquiry I   | 3     |

## 2 Preparation for the study of medicine

|   |                    |   |
|---|--------------------|---|
| UNIV 112 Play<br>course video for<br>Focused Inquiry II | Focused Inquiry II | 3 |
|---|--------------------|---|

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**Total Hours** **50-52**

1

Recommended upper-level biology electives include biochemistry, cell biology, anatomy, embryology, genetics, microbiology, molecular biology, immunology or neuroscience.

2

MATH 200 is a prerequisite for PHYS 207.

3

MATH 201 is a prerequisite for PHYS 208.

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

Medical schools 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 School of Medicine.

Students should discuss career plans with their pre-professional health career adviser for additional guidance.

| <b>Course</b>  | <b>Title</b>   | <b>Hours</b> |
|--|--|--------------|
| BIOL 300   | Cellular and Molecular Biology   | 3            |
| BIOL 303   | Microbiology   | 3            |
| BIOL 310<br>& BIOZ 310   | Genetics<br>and Laboratory in Genetics   | 5            |
| CHEM 403   | Biochemistry I   | 3            |
| MATH 200<br>or SCMA 212  | Calculus with Analytic Geometry I<br>Differential Calculus and Optimization for Business | 3-4          |
| PHIL 201   | Introduction to Ethics   | 3            |
| PSYC 101 Play<br>course video for<br>Introduction to<br>Psychology | Introduction to Psychology   | 4            |
| SOCY 101 Play<br>course video for<br>Introduction to<br>Sociology  | Introduction to Sociology  | 3            |

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