HEALTH PROFESSION SCHOOL PREREQUISITES
Including MEDICAL, DENTAL AND VETERINARY
Mount Holyoke College - Office of Pre-Health Programs

The following courses are generally required preparation for applying to medical, dental and veterinary programs. You will need to check with individual schools regarding prerequisites for nurse practitioner (NP), physician’s assistant (PA), physical therapy (PT) optometry (OD), chiropractic (DC), pharmacy (PharmD) and other health professions. Visit our website for more info: http://www.mtholyoke.edu/acad/prehalth

Introductory Biology: 2 semesters with lab

Bio 145fs or Neuro 100f and Bio 200s

• Any section of Bio 145 offered with a laboratory is a suitable starting point and serves as the pre-req for Bio 200s.
• If you are considering Neuroscience as a major, take Neuro 100f with a lab instead of Bio 145 as the pre-req for Bio 200s.
• If you wish to major in biology, you are advised to take Chem 101 in your first semester, concurrently with introductory biology. If Chem 101 must wait, take it in the fall of your second year, as it is required for a second-year biology course for biology majors (Bio 210).
• If you are considering taking Bio 145 and Chem 101 in the same semester another option exists: Integrated Introduction to Biology and Chemistry, a single 8-credit course with one laboratory meeting time that meets requirements for BOTH Introductory Bio and Chem courses. Register for both Bio 161f and Chem 160f (160 courses can ONLY be taken as a pair).
• Although not required, students who sit for the MCAT will find additional Bio helpful: (Bio 210f and Bio 220s, need Bio 200 pre-req)
• Sometimes Anatomy and Physiology, & Microbiology are also pre-reqs for PA, NP, Pharmacy, and Optometry.

General Chemistry: 2 semesters with lab

Chem 101f and Chem 201s

OR

Chem 101f and Chem 201s

OR

Chem 202f and Chem 302s

Organic Chemistry: 2 semesters with lab

Chem 101f and Chem 202s

• Take the chemistry courses in the order listed here, i.e., 101-201-202-302. Thus, it makes sense to start Chemistry early, and you will encounter organic chemistry in your sophomore year at the earliest.

Introductory Physics: 2 semesters with lab

Physics 100f and Physics 150s

• Physics 100f and 150s are designed for premed students (they do not use calculus and cover topics likely to appear on the MCAT).
• While Physics 110 and Physics 201 also meet the requirements for medical school, these calculus-based courses are designed to form the foundation for a physics or chemistry major.

English: Many schools require two semesters of English writing. All require you to demonstrate excellence in written and spoken English. Some Vet schools require Public Speaking.

Mathematics & Statistics: Most schools (MD, Vet, DO) require two semesters of math. For most, one semester of calculus and one semester of statistics suffice. However, you may need two semesters of calculus based on your major or if you intend on taking Physics 110 and 201. With the new MCAT, the importance of having a background in statistics has increased. Statistics is also required for PA, OD, NP, PT and PharmD. Proficiency in math is essential for negotiating the pre-health curriculum. Make sure to begin with a good foundation. Our Mathematics department’s online self-assessment is required to help find the best first course in mathematics.

Biochemistry: Is required for the new MCAT.

• Pre-reqs include Bio 210 and Chem 101-201-202-302.
• Vet schools already require it with a lab and it is highly recommended by most medical schools.

Behavioral and Social Science Foundations: The new MCAT section will include content in these areas: Psychology (PSYCH 100) - 65% and Introduction to Sociology (SOC 123) - 30% and Biology – 5%. The new MCAT also has a focus on Research Methods (PSYCH 200 or STAT 240) and Ethics (PHIL 205 or 260) will be useful. Professions like PT, PA, PharmD, OD & NP also have some requirements in these areas.

You are strongly advised not to overload your schedule with premed requirements in any one semester. As a rule, two premed courses in any single semester of your first year are plenty. We very strongly advise you against taking calculus in combination with any two laboratory courses (chemistry, biology, or physics) in any one semester of your first year. In general it is very difficult to take three laboratory courses in any one semester and should be avoided.

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