

PRE-MEDICINE (MD / DO / Podiatry)

Competency Development: The Guiding Principle

Medical schools are looking for well-rounded individuals who can demonstrate key competencies!

Many of the experiences listed below will give you opportunities for growth in the competencies listed at the AAMC website:

<https://www.aamc.org/services/admissions-lifecycle/competencies-entering-medical-students>

High-Value Experiences

Your pre-health advisor will be happy to discuss service & leadership opportunities that would connect well with your particular passions and values!

1. *Get involved*

- a. Involvement in on-campus Recognized Student Organizations (RSOs) or work as a teaching assistant, a lab / learning assistant, or a supplemental instructor can provide you with **leadership and communication** experience that medical schools are looking for.
- b. Developing quality relationships with off-campus, non-profit organizations and the people they serve will give you invaluable **community service** experience. Medical schools are looking for people with a service orientation, so it is much better to establish longer, qualitative service relationships with a few non-profits than to focus merely on one-off service events or fundraisers with multiple organizations.

2. *Understand what this career entails*

- a. Pre-med students would benefit from an exploration of the following **ways to practice medicine**: allopathic medicine (MD), osteopathic medicine (DO), and podiatry (DPM). Contact the pre-health advising office to find out more about these career possibilities.
- b. **Shadowing** is a crucial component in your discernment process regarding whether you should pursue this career. Medical schools want to see that you have demonstrated sustained interest in this career and that you know what you are getting into. Shadow several physicians in multiple areas of medicine, since you will need to rotate through many specializations in medical school. Questions about the process? Talk to your pre-health advisor!
- c. **Patient contact (clinical) experience** can take a variety of forms. Medical schools expect that their applicants have exposure to patients in the health care field, so do your best to gain experience as a volunteer or employee at a medical facility.
- d. Physicians need to stay up-to-date about issues related to health care in the US and the world, including the way the media is discussing health care. They also need to know what is going on in the world in general. Although pre-med students are not expected to have all the answers, you can begin to **read and stay informed in the field** in order to maintain essential knowledge as you move forward in your journey.

3. **Conduct research.** Since 80 to 97% of those who matriculate into medical schools have had some experience in research (bench/lab research, social sciences research, kinesiology research, engineering research, etc.), you should consider this an expectation. See the "High-Value Opportunities" page on our website (<http://www.uwyo.edu/preprof/pre-health-preparation/opportunities.html>) and talk to a pre-health advisor to discover possible research opportunities.

4. **Develop a strong academic record.** Most individuals who are accepted to medical school have a GPA that falls within the 3.5 to 4.0 range. Medical schools also place high value on applicants' BCPM GPA (Biological, Chemical, and Physical Sciences, plus Math), so pay attention to this during your time here at UW. Talk to a pre-health advisor about how to keep track of your various GPAs. Typical prerequisite courses for medical school are listed on the next page.

5. **Develop relationships with professionals.** Physicians, faculty, and work/volunteer supervisors can help you open doors to exciting new experiences, but they will also hopefully get to know you well enough to speak to your competencies in letters of evaluation for your medical school application.

Meet Early and Often with a Pre-Health Advisor!

Pre-Health Advising Office

hsadvise@uwyo.edu

307-766-3878

Health Sciences Room 110

To schedule an appointment: <http://www.uwyo.edu/preprof/schedule-an-appointment/index.html>

Stay Informed! Sign up to join our Pre-Professional Health ListServ, so you can stay informed about various opportunities, workshops, and information that our office sends out! <https://lists.uwyo.edu/mailman/listinfo/pre-prof>

USEFUL TIP: Create an e-mail inbox rule to send our ListServ messages into a "pre-health" folder to read at regular intervals.

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Academic Preparation

WHICH MAJOR SHOULD I CHOOSE?

You can major in ANYTHING! Medical schools do not care what you major in as long as you take their prerequisite courses. Most medical schools require completion of a bachelor's degree before matriculation into their school.

WHAT COURSES ARE TYPICALLY REQUIRED or RECOMMENDED?

Note: Specific medical schools may or may not require all of these courses before application or matriculation, but all of the courses listed in the MCAT sections ARE optimally necessary to have taken BEFORE you take the MCAT exam. Schools may also require additional courses as entry requirements. **You are responsible for making sure that you are on track to fulfill any specific school's requirements prior to application.** Talk to your pre-health advisor about things to keep in mind for school selection.

MCAT section: Critical Analysis and Reasoning Skills (CARS)

Recommendations for preparation for this MCAT section:

- High-level reading: Regularly read a variety of challenging material (beyond the material required in your courses).
- Any other course that requires rigorous thinking, extensive and challenging reading, and problem-solving skills.
- Math and statistics will assist with the problem-solving aspect, but keep in mind that CARS is about critical reading:
 - **MATH 1405** (Trigonometry) is required and is a prerequisite for the PHYS 1110 course. Few medical schools require or recommend MATH 2200 (Calculus I), but some UW majors require this course.
 - **STAT 2050 OR STAT 2070** (Statistics) is required by several medical schools and by many UW majors. Students interested in biological research would also benefit from taking LIFE 2100, but please note that medical schools will not consider this course as meeting their statistics requirement.

MCAT sections: Chemical and Physical Foundations of Biological Systems & Biological and Biochemical Foundations of Living Systems

- At least 2.5 years (5 semesters) of chemistry
 - Inorganic chemistry: **CHEM 1020 & CHEM 1030** (or CHEM 1050 & CHEM 1060)
 - Organic chemistry: **CHEM 2420 & CHEM 2440**
 - Biochemistry / Biological Chemistry: **MOLB 3610 OR CHEM 4400**
 - Molecular biology majors will also take MOLB 4600.
 - Taking MOLB 4100 (Clinical Biochemistry) could be useful before the MCAT/medical school, if you have time.
- At least 1 full year of biology - **LIFE 1010** and **MICR 2021** (preferred for MCAT prep) or LIFE 2022
- One full year of physics - **PHYS 1110 & PHYS 1120** (or PHYS 1210 & 1220 or PHYS 1310 & 1320)
 - NOTE: Fall-Spring sequence or intensive Summer sequence suggested at UW, since Spring-Fall sequence is online only!

LAB REQUIREMENT (Chemistry/Biology/Physics)

Medical schools require on-campus, lab-based courses for all science courses listed here (except MOLB 3610 / CHEM 4400, which most medical schools allow to be taken online). Medical schools DO NOT usually accept AP credit for these sciences!

MCAT section: Psychological, Social and Biological Foundations of Behavior

- At least one semester of psychology, starting with **PSYC 1000**
- At least one semester of sociology, starting with **SOC 1000**
- Additional recommendations: Cognitive psychology and any other courses about the brain and behavior, additional USP-H courses, or "A&S Core Diversity" or "A&S Core Global" courses.

How do I prepare for the MCAT?

Step # 1: Master the content in the required courses listed on this page!

Talk to a pre-health advisor for other ideas!

UW Course Prerequisites: To understand the prerequisites for any UW courses listed on this page, consult [the University Catalog](#). You can find prerequisites either by clicking on a specific course on your "Degree Programs" page or using the search box on the "Course Offerings" page.

ADDITIONAL COURSEWORK TO PREPARE FOR MED SCHOOL

Although few medical schools require any of the courses below, they do tell us that students who take coursework in one or more of the following areas tend to do better in the rigorous coursework they encounter at medical school.

Human Systems Physiology (ZOO 3115)

Genetics (LIFE 3050)

Cell Biology (LIFE 3600)

Immunology (MOLB 4400)

Any 4000-level **biochemistry** course listed above

Growth Mindset: Taking additional challenging courses that interest you will reinforce your knowledge. Selecting a course based on how "easy" it is will not result in the intellectual growth needed to do well on the MCAT or to become a physician.

Allopathic Medicine (MD) Association of American Medical Colleges

Application service: <https://students-residents.aamc.org/applying-medical-school/applying-medical-school-process/applying-medical-school-amcas/>

School information: <https://www.aamc.org/msar>

Osteopathic Medicine (DO) American Association of Colleges of Osteopathic Medicine

Application service: <https://www.aacom.org/become-a-doctor/applying>

School information: <https://www.aacom.org/student-guide>

Podiatric Medicine (DPM) American Association of Colleges of Podiatric Medicine

Application service: <https://www.aacpm.org/becoming-a-podiatric-physician/admissions/>

School information: <https://www.aacpm.org/colleges/>

Questions about funding medical school?

Find more information at our website:

<http://www.uwyo.edu/preprof/funding-your-education/>

Wyoming Resident? Check out WICHE PSEP (for osteopathic & podiatric) & WWAMI (allopathic) at this site!

<http://www.uwyo.edu/certwy>