

Pre-Medicine Fact Sheet

Prerequisite and Recommended Courses

Pre-medical students should complete the following coursework to be prepared for the Medical College Admission Test (MCAT). Students should research schools carefully, as additional courses may be required for admission. Students should meet with a Pre-Health Advisor to develop their application timeline.

COURSES TO TAKE BEFORE THE MCAT

- General Biology I & II w/ Labs - 8 hours - BIO 201/205 & BIO 202/206
- General Chemistry I & II w/ Labs - 8 hours - CHM 203/204 & CHM 205/206
- Organic Chemistry I & II w/ Labs - 8 hours - CHM 321/322 & CHM 323/324
- General Physics I & II w/ Labs - 8 hours - PHY 201/205 & PHY 202/206
 - Alternate options available to math, physics, and chemistry majors
- Biochemistry - 3 or 6 hours - CHM 371 or CHM 383 & CHM 384 (Biochemistry majors)
- Physiology - 3-4 hours - BIO 449 or EXS 320
- Statistics - 3 hours
- Psychology - 3 hours - PSY 201
- Introductory Sociology/Anthropology - 3 hours - SOC 101, ANT 111, ANT 112, or ANT 113
- English - 6 hours - must include at least one course with significant composition/writing

ADDITIONAL RECOMMENDED COURSES

- Cellular Biology (BIO 362) - A few medical schools require this course, but many recommend it. Consider taking this during sophomore year as it is a prerequisite for BIO 499 and is helpful on the MCAT.
- Genetics (BIO 317) - Some medical schools, including UNMC, require genetics. If possible, consider taking this before senior year. It is likely of increasing importance on the MCAT.
- Developmental biology, anatomy, evolution, immunology, molecular biology, microbiology, and neurobiology are some examples of additional subjects relevant to medicine. Students should choose appropriate courses in consultation with major advisors and Pre-Health Advisors.

PRE-MED GROUPS AND RESOURCES

Pre-Medical Society: All pre-medicine students should participate in the Pre-Medical Society. This student organization provides leadership opportunities to explore and gain experience in the medical profession:
<http://cuinvolved.creighton.edu/organization/premedsociety>

CU School of Medicine: Make an appointment with medical admissions office personnel in the spring of junior year to personalize the application process.

BECOMING A COMPETITIVE APPLICANT

Competitive applicants for admission to medical school have bachelor's degrees, solid academic records with mostly A/B+ grades, well-rounded profiles of co-curricular experiences, strong MCAT scores, supportive letters of recommendation, and can clearly articulate their reasons for pursuing medicine.

Selecting a Major, Grades, and GPA

Pre-medicine is a pre-professional path that can be followed by pursuing any major. Ideally, a major should be based on student interests and support any alternate career. Medical school admissions committees care about your intellectual engagement in your chosen major. Essential science background can be gained, and the ability to learn additional information, a key skill, can be demonstrated by any major.

Grades play a crucial role in medical school admissions, reflecting a student's ability to handle challenges. Maintaining grades above a "B" is important, especially in the two years prior to applying. Grades below a "B" or having more than two withdrawals (W) may raise concerns about academic readiness or judgment.

GPA's calculated on medical school applications include coursework done at all colleges attended and all attempts at a course.

Aim for GPA's of **3.5 or above**.

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COURSE SCHEDULING CONSIDERATIONS

Freshmen and sophomores usually take only two natural science or math subjects each semester.

Chemistry:

General Chemistry I (CHM 203/204) and General Chemistry II (CHM 205/206) are typical choices for freshman fall and spring. To be eligible to take General Chemistry in the freshman year, students must achieve a sufficient score on the Quantitative Assessment for New Students (QANS). Students who do not achieve a sufficient QANS score will need to complete Introductory General Chemistry 1 (CHM 102) with a grade of "B-" or better to progress to CHM 202/204.

Biology:

General Biology I (BIO 202/206) are typical choices for freshman fall and spring. Completion of either General Chemistry I (CHM 203) with a grade of "C" or better or CHM 102 with a grade of "B-" or better is required to take General Biology II.

Physics:

Students who have sufficient math and physics (a year of high school physics or a semester of college introductory physics, math through pre-calculus) are eligible to take General Physics I (PHY 201/205) and General Physics II (PHY 202/206). Prospective math, physics, and chemistry majors may take alternative sections of General Physics and additional math.

Math:

Pre-medicine students need pre-calculus algebra and trigonometry knowledge. Students who did not complete those courses in high school should take pre-calculus at a community college. NOTE: The Magis Core math requirement will be met by MTH 231 or MTH 245. Math, physics, and chemistry majors will need more than one semester of calculus, and should take MTH 254.

Summer Classes:

Science courses may be taken in the summer, but only when there are good reasons for doing so (not just a vague desire to "catch up") and not at community colleges. Speak with a Pre-Health Advisor about timelines.

Sample First Semester Schedule

Course sequencing may vary depending on a student's readiness

- General Biology I w/ Lab (4 hours)
- General Chemistry I w/ Lab (4 hours)
- Magis Core Class (3 or 4 hours) - ENG or Critical Issues & COM 101
- Magis Core Class (3 hours) - PHL or THL
- Maybe another Magis Core Class (3 hours) - PSY, SOC, or Foreign Language
- RSP Class (.5 hours)

CO-CURRICULAR EXPECTATIONS

Volunteer & Service

It is important to demonstrate sustained commitment over time. Students should have service experiences in healthcare and non-healthcare settings. Prioritize service that is directly working with individuals in need. Check out the Schlegel Center for Service and Justice for opportunities:

<https://www.creighton.edu/scsj>

Patient Care

Students must have experience working directly with patients, either through volunteer experience or through paid employment, such as a CNA, phlebotomist, home health aide, pharmacy technician, EMT or medication aide.

Shadowing

Students must gain knowledge of the profession by shadowing professionals in their field. Students should shadow in a variety of practice settings including primary care (family medicine/internal medicine). Acute and chronic care in hospitals and other settings are helpful.

Research

Experiences that are data-driven, collaborative, and investigative, with results communicated publicly are helpful (and essential for admission to some medical schools.) See the Center for Undergraduate Research and Scholarship for opportunities: www.creighton.edu/curas

Leadership and Teamwork

Students must demonstrate leadership and interpersonal skills. Consider initiating group projects, serving as an officer in a student organization, or working as a teaching assistant. Students must also demonstrate the ability to work collaboratively (working on a research team, team sports, etc.).