

PRE-MEDICINE FACT SHEET



Becoming a Competitive Applicant to Medical School

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

SELECTING A MAJOR

Pre-medicine is not a major; it is a pre-professional path successfully followed by students regardless of major. In choosing a major the rule is to follow your own interests. Ideally, your major will support an alternate career. Intellectual engagement in whatever major you choose is of greatest importance to medical school admissions committees. Essential science background can be gained - and the ability to learn additional information later in medical school and beyond - can be demonstrated whatever your undergraduate major.

GPA

GPA's calculated on medical school applications normally include coursework done at all colleges attended. If a course is repeated, both grades will be included in the GPA's calculated by the medical schools. Aim for GPA's of 3.5 or higher.

GRADES

C is an honorable grade, though most if not all grades should be higher! Grades below B, especially within the two academic years leading up to medical school application, could interfere with admission to medical schools. Faced with a likely grade below C, some students should withdraw (W) and later try for a higher grade; consult with your advisors as you decide. More than two W's, however, could indicate a lack of judgment or an inability to handle challenges in medical school.

PRE-REQUISITE AND RECOMMENDED COURSES

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

PRE-REQUISITES TO TAKE BEFORE THE MCAT:

- General Biology I and II with lab – 8 semester hours (BIO 201/205 and 202/206)
- General Chemistry I and II with lab – 8 semester hours (CHM 203-206; CHM 285/286 can substitute for CHM 205/206)
- Organic Chemistry I and II with lab – 8 semester hours (CHM 321-324)
- General Physics I and II with lab – 8 semester hours (see below for information about the different options with physics)
- Biochemistry – 3 semester hours (CHM 371 for non-chemistry majors, CHM 381 for those with any major track through the chemistry dept.) – note: Organic Chem II is a prerequisite.
- Physiology – 3 semester hours of BIO 449, EXS 320, or equivalent; the course must have general biology as a prerequisite.
- Statistics or a course that develops statistics competency; applied statistics is very important for the MCAT. A statistics course is required by several medical schools including Creighton's; many departments offer statistics and any could suffice.
- Psychology – 3 semester hours (PSY 201)
- Introductory Sociology or Anthropology – 3 semester hours (SOC 101, ANT 111, 112, or 113)
- English – 6 semester hours (including at least one course with significant composition/writing)

ADDITIONAL COURSES THAT ARE RECOMMENDED FOR THE MCAT AND/OR MEDICAL SCHOOL:

- Cellular Biology (BIO 362) – lots on MCAT. A few medical schools require but many recommend. Consider taking sophomore year. Prerequisite for taking BIO 449.
- Genetics (BIO 317) – required by a few med schools including UNMC; likely of increasing importance on MCAT. If possible, consider taking before senior year.
- Developmental biology, anatomy, evolution, immunology, molecular biology, microbiology, and neurobiology are some examples of additional subjects relevant to medicine; each student should choose appropriate courses in consultation with pre-health advisors and/or major advisors.

PRE-HEALTH GUIDES AND RESOURCES

EDGE PRE-HEALTH ADVISING: Pre-Health Advisors in the EDGE are available to meet with students one-on-one about their pre-health goals and path.

EDGE PRE-HEALTH SEMINARS: The EDGE seminars assist students in exploring the medical profession, gaining experience in healthcare, and preparing for the application process. Students should participate in PHLC 200 in their sophomore year, and then PMED 300 in either the junior or senior year (depending upon the student's application timeline).

PRE-HEALTH LISTSERV: Subscribe at: <http://lists.creighton.edu/mail-man/listinfo>

PRE-MEDICAL SOCIETY: All pre-medicine students should participate in the Pre-Medical Society. This student-run organization provides leadership opportunities to further explore and gain experience in the medical profession, (<http://blogs.creighton.edu/premedsociety>)

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

HELPFUL LINKS:
creighton.edu/edge - Creighton EDGE
medschool.creighton.edu – CU School of Medicine
aamc.org – Association of American Medical Colleges
aacom.org – American Association of Colleges of Osteopathic Medicine
amsa.org – American Medical Student Association

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. Students must have a sufficient chemistry background (completion of high school chemistry) and sufficient math background (an ACT math score of at least 24 or an SAT math score of at least 560) to be eligible to take General Chemistry in the freshman year. Students may instead take additional math and/or CHM 105 Introductory Chemistry in freshman year to be better prepared for General Chemistry in the sophomore year.

Biology: General Biology I (BIO 201/205) and General Biology II (BIO 202/206) are typical choices for freshman fall and spring, respectively.

Physics: Students who have sufficient math and physics (a year of high school physics or a semester of college introductory physics such as our PHY 187; 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 alternate sections of General Physics and additional math.



15 Core Competencies for Medical School Applicants – AAMC “Anatomy of an Applicant”

Besides courses, other activities will also help develop and demonstrate your competencies in: Service Orientation; Social Skills; Cultural Competence; Teamwork; Oral Communication; Ethical Responsibility to Self/Others; Reliability and Dependability; Resilience and Adaptability; Capacity for Improvement; Critical Thinking; Quantitative Reasoning; Scientific Inquiry; Written Communication; Science – Living Systems; Human Behavior. The co-curricular expectations to the right provide opportunities to gain and demonstrate these competencies.

MEDICAL SCHOOL APPLICATION PROCESS

NATIONAL ADMISSION TESTS: All applicants must take the Medical College Admission Test (MCAT), a national, standardized computer-based test. The MCAT is typically taken 13-15 months before intended matriculation to medical school. Seats fill quickly for each date and registration must be submitted early in order to test on the date you desire. To do well on these standardized tests, it is necessary to first complete appropriate pre-medical courses and complete intensive study for the test.

LETTERS OF RECOMMENDATION: From three or four of the applicant's professors, of whom at least two taught the applicant in natural science or math courses and at least one in non-science courses emphasizing the human condition (social sciences or humanities), are usually a required part of the application process. Supervisors of relevant paid or volunteer work, research, etc. may also provide helpful evaluations.

INTERVIEWS: Most medical schools will interview promising applicants. The Career Center offers interview preparation assistance, including mock interviews. Creighton School of Medicine gives special consideration to applicants who have attended Creighton for at least two years; however, interviews are not guaranteed for Creighton students. Some special consideration is given by most schools to applicants from socioeconomic groups underrepresented in the profession.

Math: Pre-medical students will need pre-calculus algebra and trigonometry knowledge; if those courses were not completed in high school, MTH 139 Precalculus should be taken (Note: MTH 139 does NOT meet the Magis Core math requirement; that would then be met by taking MTH 231 or 245). Math, physics, and chemistry majors will need more than one semester of calculus and usually should not take MTH 231.

Summer: Science courses may be taken in the summer by pre-medical students, 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 upon a student's readiness.

- General Biology I with lab (4 sem. hours)
- General Chemistry I with lab (4 sem. hours)
- Magis Core Class (3 or 4 sem. hours) – ENG or Critical Issues + COM
- Magis Core Class (3 sem. hours) – PHL or THL
- Maybe another Magis Core Class (3 sem. hours) – PSY or SOC, foreign language
- RSP Class (.5 semester hours each freshman semester)

CO-CURRICULAR EXPECTATIONS

VOLUNTEER AND SERVICE

Students must have service experiences in both healthcare and non-healthcare settings, and it is important to show sustained commitment over time. Check out the Schelgel Center for Service and Justice for opportunities - <http://blogs.creighton.edu/ccsj/>

LEADERSHIP

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.

PATIENT CARE

Students must have experience working directly with patients, either through volunteer experience or through paid employment opportunities, such as CNA, Phlebotomist, Home Health Aide, Pharmacy Technician, EMT, or Medication Aide.

TEAMWORK

Students must demonstrate the ability to work collaboratively. Group projects within classes, team sports, working on a research team are just a few ways to demonstrate this ability.

SHADOWING

Student must gain knowledge of the profession by shadowing current professionals in their field. The variety of practice settings shadowed should include primary care, such as family practice and internal medicine physicians. Both acute and chronic care, in hospitals and other settings (such as community clinics and nursing/rehabilitation facilities) are helpful.

RESEARCH

Experiences that are data-driven, collaborative, and investigative, with results communicated publicly – are very helpful, and are essential for admission to some medical schools; see the Center for Undergraduate Research and Scholarship for opportunities at <http://www.creighton.edu/curas/>.