Physicians diagnose illnesses and prescribe and administer treatment for people suffering from injury or disease. Physicians examine patients, obtain medical histories, and order, perform, and interpret diagnostic tests. They counsel patients on diet, hygiene, and preventive health care.

There are two types of physicians: M.D.—Doctor of Medicine, and D.O.—Doctor of Osteopathic Medicine. M.D.s are also known as allopathic physicians. Both M.D.s and D.O.s may use all accepted methods of treatment, including drugs and surgery. D.O.s place emphasis on the body’s musculoskeletal system, preventive medicine, and holistic patient care.

Physicians may work in one or more of several specialties, including, but not limited to, anesthesiology, family and general medicine, internal medicine, pediatrics, obstetrics and gynecology, psychiatry, and surgery. (From the online *Occupational Outlook Handbook*).

Most colleges of medicine including the University of Iowa College of Medicine require an undergraduate baccalaureate degree. University of Iowa students must choose a degree granting major to go with their pre-med track. An MD is a four-year professional degree. Students follow medical school with three or more years in residency (specialized clinical training).

Sample four-year plans based on UI math and chemistry placement tests

**Plan A for students starting with General Chemistry**

Year 1:
- CHEM:1070 General Chemistry
- MATH: based on UI math placement
- CHEM:1110 Principles of Chemistry I
- MATH: related to major*  
- SOC:1010 Intro.to Sociology**

Year 2:
- CHEM:1120 Principles of Chem. II
- BIOL:1411 Foundations of Biology
- PSY:1001 Elementary Psychology**
- CHEM:2210 Organic Chemistry I
- BIOL:1412 Diversity of Form and Function
- PSY:2130 Adv. Psychology-Pre-Med.**

Year 3:
- CHEM:2220 Organic Chem. II
- PHYS:1511 College Physics I
- BIOC:3110 Biochemistry***
- CHEM:2410 Organic Chem. Lab
- PHYS:1512 College Physics II
- Advanced biology course***
- Summer: Apply to medical
- Take MCAT in spring or summer

Year 4:
- Courses to complete major
- Courses to complete major
### Plan B for students starting with Principles of Chemistry

**Year 1:**
- CHEM:1110 Principles of Chem. I
- CHEM:1120 Principles of Chemistry II
- MATH: related to major*
- BIOL:1411 Foundations of Biology
- SOC:1010 Intro to Sociology**

**Year 2:**
- BIOL:1412 Div. of Form & Function
- CHEM:2210 Organic Chemistry I
- CHEM:2220 Organic Chemistry II
- PSY:1001 Elem. Psychology**
- PSY:2130 Adv. Psychology-Pre-Med.**

**Year 3:**
- PHYS:1511 College Physics I
- BIOC:3110 Biochemistry***
- PHYS:1512 College Physics II
- Summer: Advanced biology course***

**Year 4:**
- Courses to complete major

### Plan C for Engineering majors who are premed

**Year 1:**
- CHEM:1110 Principles of Chem. I
- CHEM:1120 Principles of Chemistry II
- MATH:1550 Engineering Math I*
- PHYS:1611 Intro Physics I with lab
- Courses for the major

**Year 2:**
- BIOL:1411 Foundations of Biology
- CHEM:2210 Organic Chemistry I
- BME:2400 Cell Biology for Engineers
- CHEM:2220: Organic Chemistry II
- HHP:3500 Human Physiology
- Courses for the major

**Year 3:**
- PHYS:1612 Physics II with lab
- BIOC:3110 Biochemistry***
- CHEM:2240 Organic Chem Lab
- Courses for major
- Summer: Take MCAT in spring or summer

**Year 4:**
- Courses to complete major

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* Calculus is not required for the UI College of Medicine. However, it is required for some science majors. The major will determine which math class is taken.

** While sociology and psychology are not prerequisites for most medical schools, topics from sociology form 30% and topics from psychology form 60% of one of the MCAT tests. To be well-prepared, students may wish to complete SOC:1010 Intro. to Sociology, PSY:1001 Elementary Psychology and PSY:2130 Advanced Psychology for Pre-Med.

***One semester of biochemistry is required by the UI College of Medicine and can count toward its advanced biology requirement. The two-semester Biochemistry sequence (BIOC:3120/3130) is also an option for Biochemistry majors. Additional advanced biology courses are desirable as time and interest permit.

Note: The UI College of Medicine requires two courses in English and four courses in social and behavioral sciences/humanities. These may be satisfied by the courses a student selects for the General Education Program. Other medical schools may have different prerequisites—check websites for the individual medical schools or see your pre-medical advisor for more information.
Academic Guidelines
UI undergraduates must have at least a 3.0 cumulative GPA by the end of their third semester to maintain their premedical designation. The mean cumulative GPA for the entering 2020 class at the UI College of Medicine was 3.81 and the mean science GPA was 3.77. Applicants with GPAs well below the averages are unlikely to be accepted to medical school. Admissions committees choose from a large applicant pool of extremely talented students. Therefore, we encourage UI premedical students to aim for a GPA at or above the mean. Undergraduate applicants must have at least a 3.0 GPA for all college work undertaken to apply to the UI College of Medicine.

Non-Academic Guidelines
Successful applicants work or volunteer caring for patients. They shadow physicians and observe a variety of medical specialties. The admissions committee seeks students who participate in research, hold leadership positions in organizations that serve others, and maintain strong relationships with faculty and other mentors. All premedical students must be dedicated to lifelong learning.

UI College of Medicine Admissions Profile 2018:
(152 students admitted)
Mean cumulative GPA: 3.81 Mean MCAT PSBB: 129
Mean science GPA: 3.77 Mean MCAT BBFL: 129
Mean MCAT CARS 128 Mean MCAT CPBS 129

The Application Process
Applications for allopathic medical schools are initiated through the centralized, online American Medical College Application Service (AMCAS) (www.aamc.org/students/). Applications for osteopathic medical schools are begun through the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS) (www.aacom.org). Applications should be submitted one year prior to the year for which a student is seeking admission. Since many medical schools (including UI) have rolling admissions, it is in a student’s best interest to apply early (after June 1st). Students applying to allopathic medical schools should consult the Medical School Admissions Requirements (MSAR), available for purchase through the AAMC website. The UI College of Medicine gives preference to residents of the state of Iowa: the entering class is 70% residents and 30% non-residents. Students should research the residency preferences at the medical schools to which they are applying.

Entrance Examination Requirement (MCAT)
The Medical College Admission Test (MCAT) is a computer-based exam required for admission to both allopathic (M.D.) and osteopathic (D.O.) programs. The MCAT consists of four sections: Biological and Biochemical Foundations of Living Systems; Chemical and Physical Foundations of Biological Systems; Psychological, Social and Biological Foundations of Behavior; and Critical Analysis and Reasoning Skills. We encourage students to spend at least six months preparing for the exam and to take multiple practice exams under timed conditions. Khan Academy partners with the AAMC to offer free MCAT preparation online.
**Letters of Evaluation/Recommendation**
The UI College of Medicine requires three letters: two academic and one of the student’s choice. One of the academic letters should be from a science professor, and the other should be from a faculty member in the student’s major department. The third letter can come from a supervisor, volunteer coordinator, or research mentor. (Please do not request letters from friends, co-workers, high school teachers, or family members.) Many medical schools require two letters from science professors. Students applying to osteopathic medical schools need to have one letter from a practicing D.O. UI does not have a pre-medical committee; instead, students request individual letters from their evaluators.

**Interviews**
Interviews vary by school; applicants should check online resources for information regarding the interview format and timeline. Practice interviews are available through the UI Career Center, C310 Pomerantz Center.

**Criminal Background Checks**
The AMCAS application asks applicants whether they have a record of felonies or misdemeanors, and this information is then communicated to the medical schools. Medical schools and hospitals conduct criminal background checks. Students should make careful decisions throughout their undergraduate years. Charges for drug and/or alcohol use or possession, as well as other charges, can have negative consequences for admission.

**Early Decision**
The UI College of Medicine does not offer an Early Decision Program. Applicants interested in applying through Early Decision (EDP) to other medical schools should consult the MSAR.

**Diversity in Medicine**
Medical schools, including the UI College of Medicine, seek to recruit a diverse class of students including students who are underrepresented in the health professions (African-American, Latino/a, and Native American students).

The University of Iowa College of Medicine participates in a summer enrichment program, Summer Health Professions Education Program (SHPEP), https://medicine.uiowa.edu/shpep/. SHPEP’s goal is to strengthen the academic proficiency and career development of underrepresented students.

**Citizenship/International Students**
Only citizens or permanent residents of the United States are eligible for admission to the University of Iowa College of Medicine, with the exception of candidates with asylum status. Students who are not US citizens should order an MSAR to research where they are eligible to apply.

**Websites:**
- Allopathic Medicine: [www.aamc.org](http://www.aamc.org)
- UI College of Medicine: [www.medicine.uiowa.edu](http://www.medicine.uiowa.edu)
- Osteopathic Medicine: [www.aacom.org/](http://www.aacom.org/)