



Physicians and surgeons diagnose and treat injuries or illnesses. Physicians examine patients, take medical histories, prescribe medications, and order, perform, and interpret diagnostic tests. They often counsel patients on diet, hygiene, and preventive health care. Surgeons operate on patients to treat injuries, such as broken bones; diseases, such as cancerous tumors; and deformities.

Physicians and surgeons typically do the following:

- Take a patient’s medical history
- Update charts and patient information to show current findings
- Order tests for nurses or other healthcare staff to do
- Review test results to identify any abnormal findings
- Recommend and design a plan of treatment
- Answer concerns or questions that patients have about their health and well-being
- Help patients take care of their health by discussing topics such as proper nutrition and hygiene

Physicians and surgeons work in one or more of several specialties. The following are some of the many types of physicians and surgeons: family physicians, internists, pediatricians, obstetricians, anesthesiologists, cardiologists, dermatologists, radiologists, general surgeons, and surgeons of varying specialties. *(Occupational Outlook Handbook)*

The College of Medicine of the University of Nebraska Medical Center requires a minimum of 90 semester hours for admission. However, students pursuing a pre-medical curriculum are expected to choose a major so that they can be working towards a baccalaureate degree concurrently with the pre-medical program. This requires a major/minor combination or a comprehensive major as well as completion of the UNK general studies requirements and other degree requirements as set forth in the college catalog. Medical schools do not specify which major a student should pursue in conjunction with his/her pre-medical studies. **Gaining acceptance into a medical school is a very competitive process. Completion of the pre-requisite courses does not automatically guarantee admission.**

The following requirements are based on the admission requirements of the College of Medicine at the University of Nebraska Medical Center. Students wanting to apply to other medical schools should check with those specific schools for additional requirements.

1. Required courses:

Take a minimum of one of the following courses:

BIOL 103	General Biology	4
BIOL 105	Biology I	4
BIOL 211	Human Microbiology	4
BIOL 215	Human Physiology	4
BIOL 225 and 226	Anatomy and Physiology	8

Take all of the following:

CHEM 160	General Chemistry	4
CHEM 161	General Chemistry	4
CHEM 360	Organic Chemistry	5
CHEM 361	Organic Chemistry	5
CHEM 351	Biochemistry	4
BIOL 106	Biology II	4
BIOL 360	Genetics	4
ENG 101	Introduction to Academic Writing	3
ENG 102	Academic Writing and Research	3
PHYS 205	General Physics	5
PHYS 206	General Physics	5

Take one of the following to fulfill the math requirement:

STAT 241	Elementary Statistics	3
MATH 115	Calculus I	5
MATH 123	Applied Calculus	3

2. Electives: A minimum of 12-16 hours is required.

Recommended electives to assist in preparing for the Medical College Admissions Test (MCAT):

BIOL 309	Cellular & Molecular Biology	4
PSY 203	General Psychology	3
PSY 440	Health Psychology	3
SOC 100	Introduction to Sociology	3
SOC 275	Social Psychology	3

Other courses in English literature, foreign language, psychology, philosophy, political science, economics, sociology, fine arts, and upper division biology and chemistry are also recommended. See advisor for suggestions.

Academic Guidelines

An overall GPA of 3.5 or above (on a 4.0 scale) is preferred. The overall average GPA for the students accepted to medical school is approximately a 3.75 or higher at most schools. Each required course must be passed with a grade of “C” or better. A grade of “C-” will not be accepted. Students searching for electives outside their major requirements should consider courses from the following areas: biology, chemistry, mathematics, sociology, psychology, business administration, healthcare management, and healthcare economics. See your advisor for suggestions. Students should be aware of prerequisites on all courses and plan their coursework accordingly.

Non-Academic Guidelines

There is no magic formula for acceptance into professional school. Admission is based on GPA, test scores, shadowing and medical experiences, community involvement and volunteerism, leadership qualities, the interview, the essay, and letters of recommendation. Shadowing and medical experiences are of utmost importance. Students should plan to shadow a minimum of 40 hours in their selected profession. Health Sciences offers opportunities to meet these non-academic guidelines through the Shadowing Program, the Health Science Club, and volunteer experiences. Research experience is not required, but will be looked upon favorably. Students should plan to be involved in these types of activities and experiences throughout their undergraduate career. Other important non-academic factors include good moral character, excellent interpersonal skills, a deep commitment to healthcare, evidence of leadership potential and service to others.

The Application Process

Students will make application to most medical schools through a centralized application service called the American Medical Colleges Application Service (AMCAS). The centralized application service allows students to fill out one application to apply to multiple schools. The application and additional information may be accessed at www.aamc.org. The application becomes open for students in early summer and the deadline for the regular admission cycle for the UNMC College of Medicine is November 1st. Early application is strongly encouraged. Students should make application in the summer or early fall of the calendar year proceeding the year in which they hope to enroll in professional school. Applicants need not wait for MCAT scores, transcripts, or other application materials

before applying through AMCAS. Check with the schools to which you are applying to verify their policies and procedures regarding supplemental applications, which may be required by many schools.

Exceptionally competitive applicants may consider applying to Early Decision Program at UNMC. EDP applications must be submitted to AMCAS by August 1st. Students can only apply to one medical school through the EDP program and they must attend that school if accepted. Applicants are notified of EDP decisions by October 1st. If an applicant is not accepted through the EDP program, their applicant is automatically deferred to the regular applicant pool. The applicant may then apply to additional schools if they so desire.

Entrance Examination Requirement (MCAT)

All U.S. medical schools require applicants to take the Medical College Admission Test (MCAT). It is preferred that the MCAT is taken no later than August of the calendar year preceding the year in which the applicant wishes to enroll in a medical program. Students register online at www.aamc.org in the section for Students. The MCAT is a computerized examination that tests for mastery of basic concepts in biology, general and organic chemistry, physics, psychology, and sociology. It also assesses problem solving, critical thinking and analytical abilities.

Students should plan to add the psychology and sociology classes recommended above. A full year of general biology, at a minimum, will also be critical to success on the MCAT. Courses in anatomy, physiology, microbiology and cell biology are recommended as well. These courses will be in addition to the current chemistry, physics, and biology courses listed in this Pre-Med Guide. For more information about the MCAT, please refer to the following website: <https://www.aamc.org/students/applying/mcat/> To aid in MCAT preparation, Health Sciences offers a Test Prep Review Program every spring semester. For more information, please contact Health Sciences.

Letters of Evaluation/Recommendation

Letters of evaluation will be required of applicants. Letters from a faculty member, physician, academic advisor, or employer would be appropriate. Information about the non-academic character of a student would be most useful as academic information is already in the application. Students should have their evaluation letters submitted directly through AMCAS.

Interviews

Most schools screen applicants with some form of personal interview. The format of the interview may vary depending on the schools to which you are applying.

Criminal Background Checks

Prerequisite for enrollment into any health science professional program is consent for an external background check. This check includes, but is not limited to, past criminal offenses and registry information. If there is evidence of arrest for a crime(s), conviction for a crime(s), presence on an abuse registry, or other information which reasonably suggests that patient safety might be compromised, the student will be asked to provide additional information

Citizenship/International Students

Professional schools in the health sciences vary as to whether they accept non-U.S. citizens. Some schools that do accept non-citizens require a substantial financial commitment up front. Since not all schools accept non-citizens and since the financial commitment of those that do may be substantial, students should thoroughly research and carefully consider such a decision and discuss it with their pre-health advisors early in their undergraduate years.

Websites

American Medical Association	www.ama.org
American Association of Medical Colleges	www.aamc.org
UNK Health Sciences	www.unk.edu/healthsciences

Suggested Sequence of Key Courses

	Fall	Spring
Year 1	CHEM 160 Biology Course: See your advisor for suggestions. MATH: See advisor for appropriate course placement.	CHEM 161 Biology Course: See your advisor for suggestions.
Year 2	CHEM 360 BIOL 225 PSY 203	CHEM 361 BIOL 226 SOC 100
Year 3	PHYS 205 BIOL 309 (recommended) CHEM 351	PHYS 206 BIOL 360 SOC 275 <i>Register to take the MCAT in late spring or summer. Complete medical school application in the summer.</i>
Year 4	Complete final major courses.	Complete final major courses.

- A minimum of 8 hours of biology is required, but additional advanced biology is highly recommended, especially a course dealing with cell structure and function.
- A minimum MATH ACT score of 22 or prior completion of College Algebra (MATH 102) or higher is a pre-requisite for CHEM 160.
- A minimum MATH ACT score of 20 or prior completion of College Algebra (MATH 102) or higher is required for entry into PHYS 205.
- Sophomore standing is a pre-requisite for BIOL 225.
- The courses suggested above should be completed prior to taking the MCAT. It is not recommended to take any of the above science courses during a summer session, especially if the material will be covered on the MCAT.

Osteopathic Medicine: There are two types of physicians: M.D. (Medical Doctor, often referred to as allopathic medicine) and D.O. (Doctor of Osteopathic Medicine). Both types of physicians use the same methods of treatment, including drugs and surgery, but D.O.s place additional emphasis on the body's musculoskeletal system, preventive medicine, and holistic (whole person) patient care.

Osteopathic medical schools require the same coursework as allopathic programs. They also require the MCAT exam and similar non-academic qualifications. The same specialty and residency opportunities exist for both allopathic physicians and osteopathic physicians. Students interested in Osteopathic Medicine should follow this Pre-Med Guide, with the exception that the application process occurs through a centralized application service called the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS).

For more information regarding the osteopathic profession and schools/college of osteopathic medicine, please refer to the following websites: www.aacom.org and www.osteopathic.org

Students who are accepted into medical school prior to completing a baccalaureate degree at UNK may be eligible to receive a Bachelor of Science degree in Applied Health Sciences if they have completed all general studies requirements and other graduation requirements as set forth in the UNK catalog and have at least 85 semester hours completed in pre-medical studies.