



Pre-Medicine

Includes Osteopathic and Podiatric Medicine

The majority of UW-La Crosse pre-medical students are residents of Wisconsin. Accordingly, this curriculum guide represents UW-La Crosse courses that will satisfy the minimum requirements of the two Wisconsin medical schools. As indicated in this guide, Minnesota residents must take statistics or calculus, plus additional English and humanities, in addition to the other requirements, in order to qualify for admission to the University of Minnesota. If you intend to apply to an out-of-state medical school, you are cautioned to carefully check the requirements of that school.

Study the UW-L catalog for details of (1) General Education, (2) College Core requirements, and (3) graduation requirements. The pre-medicine advisor and college counselors will provide as much assistance as possible to assure a smooth and successful program, but the ultimate responsibility for completing university graduation requirements and medical school admission requirements rests with the student.

In planning your curriculum, it is very important that all pre-medicine requirements and as many pertinent electives as possible are completed by the end of the junior year. Along with academic record, the Medical College Admission Test (MCAT) scores are the most important factors determining admission to medical school. The MCAT is ideally taken between April and June of the junior year. **PLAN YOUR CURRICULUM CAREFULLY** in order that you may achieve your MCAT potential.

1. Medical School Admission Requirements and Recommended Electives

A. Departmental Requirements

1. Biology: 16 semester hours including general biology (4 semester hours) as well as anatomy and physiology (8 semester hours)
2. Chemistry: 16 semester hours including 1 year inorganic, 1 year organic
3. Biochemistry: at least 1 semester (4 semester hours)
4. Mathematics: through at least pre-calculus
5. Physics: 8 semester hours
6. English: 6 semester hours

Total pre-Medicine Requirements: approximately 54 semester hours (Wisconsin)

Minnesota Residents Note: University of Minnesota requires:

1. General Biology or Zoology: 7 semester hours
2. Mathematics: statistics or calculus, 4 or 5 semester hours
3. English and Literature: 8 semester hours
4. Social and Behavioral Sciences and humanities: 18 semester hours (e.g. psychology, anthropology, history, sociology, economics, philosophy, or language)
5. Chemistry: 16 semester hours including 1 year inorganic, 1 year organic
6. Physics: 8 semester hours

University of Wisconsin-La Crosse
Pre-Medicine Requirements cont.

B. Course Requirements

Department	Course No.	Course Name	Credit Hours	
Biology	105	General Biology	4	
	312 & 313	Anatomy & Physiology I & II (8 credits)	8	
	306 <i>or</i> 315	Genetics <i>or</i> Cell Biology	$\frac{4}{12}$	
Chemistry	103	General Chemistry I	5	
	104	General Chemistry II	5	
	303	Organic Chemistry I	3	
	304	Organic Chemistry II	3	
	305	Organic Chemistry Lab	$\underline{2}$	
	325	Survey Biochemistry	$\frac{4}{22}$	
Mathematics	151 <i>or</i> 207	Pre-Calculus or Calculus	$\frac{4-5}{4-5}$	
	Physics	103	Fundamental Physics I	4
104		Fundamental Physics II	4	
or				
203		General Physics I (h.s. or college calculus is pre-requisite)	4	
204	General Physics II	$\frac{4}{8}$		
English	110	College Writing I	3	
	and one additional English course		$\frac{3}{6}$	

NOTE: University of Minnesota requires MTH 145, Statistics *or* MTH 207, Calculus, 18 credits of Social Sciences, CHM 325 or 417/418 (Biochemistry), and eight semester hours of English.

NOTE: Several of the above admission requirements also satisfy UW-La Crosse General Education requirements.

HOW MEDICAL EDUCATION WORKS

BEFORE MEDICAL SCHOOL

Admission to Medical School: Typically, medical schools require a college bachelor's degree. The degree may be in any discipline but the student must take basic courses in biology, chemistry, physics and mathematics. College course work should also include courses in language, written and spoken communication, literature, the arts, history, social sciences, etc. Many medical schools also require at least one psychology course. Most medical schools are looking for people who have not only ability in the sciences, but also have well-rounded interests, a broad education, knowledge of and experiences in the medical field as well as campus and community involvement.

The ability to handle medical school studies is determined largely by grade point average and the Medical College Admission Test (MCAT), which is given nationwide several times per year. Most applicants to medical school take this exam in the spring of the junior year in college. The MCAT tests for basic knowledge in the physical and biological sciences, math, and for skills in problem solving and reading comprehension along with verbal reasoning in the humanities and social sciences in addition to writing samples.

Once academic ability has been demonstrated, most medical schools attempt to judge the applicant's motivation and personal character. At the University of Wisconsin, The Admissions Committee members rely heavily on the essays applicants write, on letters of recommendation, and, ultimately a personal interview to assess these factors and measure potential for development as a physician.

IN MEDICAL SCHOOL

The Basic Science Years (Years One and Two): The traditional course work leading to the M.D. degree starts with two years of basic sciences: biochemistry, anatomy, physiology, microbiology, pathology, and pharmacology. The student learns about normal and abnormal body functions as a prerequisite to clinical studies in hospital settings. Most schools also introduce some clinical medicine in these years. For instance, the student learns how to take a patient's health history and to do a physical exam.

The Clinical or Hospital Years (Years Three and Four): Most schools require prescribed experiences in the major clinical specialties: internal medicine, surgery, pediatrics, psychiatry, and gynecology and obstetrics. Beyond this required training, the student has the opportunity to take electives in other areas such as radiology or neurology. Exposure to the many fields of medicine helps the student determine in which area he or she may wish to specialize.

AFTER MEDICAL SCHOOL

Residency Training: The knowledge and skills necessary to practice medicine today require further training. Whether the professional goal is family practice or nuclear medicine, the newly graduated M.D. takes additional hospital training as a resident physician. The usual residency is three to four years incorporating the year formerly known as an internship. Some subspecialties, e.g. neurosurgery, require up to seven years.

Fellowship Training: Post-residency training may be taken in a select area of a specialty. For example, the physician who has taken residency training in general problems of eye disease may choose to become an expert in problems of the retina of the eye.

Years in Practice: With new advancements, medicine is ever-changing. Because medical schools must keep abreast of new methods and research discoveries, they offer courses in continuing education to practicing physicians and other health professionals.