
Preparing for Professional School: Dentistry, Medicine, Pharmacy, Optometry, and Veterinary Medicine

Many students come to UMD unsure of a major, yet knowing that they want to be a doctor, pharmacist, optometrist, veterinarian or dentist. This guide is for use by students at UMD who are considering careers in medicine, optometry, pharmacy, dentistry or veterinary medicine.

Professional School Admissions Factors

Professional schools base their admission decisions on many factors and each school has a unique set of criteria. Admission committees seek students who have excellent scholastic preparation, intellectual potential and personal attributes; they also pursue students who have diverse experiences and backgrounds.

In general, professional schools look for:

1. Evidence that the applicant has the ability to successfully complete the academic work in professional school; and
2. Evidence that the applicant has the personal qualities and characteristics of professionals in the field (e.g., maturity, integrity, leadership qualities, motivation for medicine, concern for others, self-discipline, breadth of interests.)

Admission committees look for this evidence in the following:

1. College transcripts (grades, credit loads carried, distribution of courses among biological, physical, social sciences, and humanities)
2. Admission test scores
3. Letters of evaluation/recommendation
4. Personal statements and other essays on the application
5. Personal interviews

Professional school websites are generally the best sources for this and other admissions information. See resources listed on the back of this guide for more information.

Academic Preparation for Professional School

Your application to professional school starts with your undergraduate academic preparation. At UMD, most pre-professional students choose a major in the Swenson College of Science and Engineering and complete the requirements for a Bachelor of Science (B.S.) degree. Choosing a major in science is not required, however, and the most important consideration is to pursue a field of study that is both interesting and challenging to you, and compatible with your abilities. Do not choose a major solely because you think it may improve your chances for admission to professional school; there is no major that will increase your chances of being accepted! In fact, professional schools strive for diversity among their students in academic backgrounds, experiences, and interests so there is really no advantage in choosing one major over another when it comes to being a competitive professional school applicant. When choosing your major you should also keep in mind alternate careers in the event that you change your plans or are not successful in entering professional school.

For additional information:

Swenson College of Science & Engineering - Student Affairs Office
140 Engineering Building
218-726-7585 scsesa@d.umn.edu
<http://www.d.umn.edu/scse>

Professional school prerequisites

Professional schools typically require a set of prerequisite courses for admission. The prerequisite course requirements vary from profession to profession and school to school, yet most professional schools of medicine, veterinary medicine, pharmacy, optometry, and dentistry require or recommend a combination of the following types of courses:

Professional school prerequisites	Possible courses at UMD
One year of Biology	Biol 1011 and 1012 General Biology I and II
One year of General Chemistry	Chem 1151 and 1152 General Chemistry I and II
One year of Organic Chemistry	Chem 2541/2543 Organic Chemistry I/lab Chem 2542/2544 Organic Chemistry II/lab
One year of Physics	Phys 1001 and 1002 Intro to Physics I and II Phys 2011 and 2012 General Physics I and II
Human Anatomy and Physiology	Biol 2769 Human Anatomy Phsl 3011 Human Physiology Hlth 2030 Applied Human Anatomy Hlth 2040 Applied Human Physiology
College level math	Math 1250 Precalculus Math 1296 Calculus I Math 1290 Calculus for the Natural Sciences
Statistics	Stat 2411 Statistical Methods Stat 3411 Engineering Statistics Stat 3611 Probability and Statistics
One year of English	Writ 1120 College Writing Writ 31XX Advanced Writing
Humanities and Social Sciences	Courses from psychology, sociology, philosophy, cultural studies, history, etc.

These courses also help students prepare for the professional exams – MCAT, PCAT, OAT, DAT, or GRE – required for admission to most professional schools. Because the exact course prerequisites vary from school to school students should consult the websites of their schools of interest to ensure they are taking the appropriate courses.

Extracurricular considerations for professional school applicants

Successful applicants to professional schools typically have a breadth of experience outside the classroom at the college level:

- **VOLUNTEER:** Be sure to have experience in volunteering, community service, extracurricular and/or leadership roles. Examples: Habitat for Humanity, Meals on Wheels, Big Brothers/Big Sisters, fraternities/sororities, tutoring, band/choir, academic or social clubs, team sports.
- **EXPERIENCE:** Obtain experience in your area of interest. This experience can be working experience, job-shadowing, volunteering, or informational interviews.
- **LETTERS OF RECOMMENDATIONS:** Letters must come from individuals that know you in a professional or academic capacity, no personal contacts.
- **STUDY ABROAD:** Learn about health care in different countries, learn a foreign language, and learn about the cultural differences of patients. Students on the Duluth campus can visit the International Education office for more information.
- **RESEARCH THE PROFESSION:** Learn about the direction that the profession is going and be prepared to discuss this. Shadow individuals working in different roles in the field and learn about the profession from them.

Resources for pre-professional students

These websites outline resources on professional school admissions requirements, accreditation, curricula, and more.

Medical Schools – American Association of Medical Colleges (AAMC) – www.aamc.org/medicalschoools.htm

Pharmacy Schools – American Association of Colleges of Pharmacy (AACP) – www.aacp.org

Dental Schools – American Dental Education Association (ADEA) – www.adea.org/dental_education_pathways

Optometry Schools – Association of Schools and Colleges of Optometry (ASCO) – www.opted.org

Veterinary Schools – Association of American Veterinary Medical Colleges (AAVMC) – www.aavmc.org/