

Preparation for the Health Professions Course Selection

There is no pre-med or pre-health major at Williams. Interested students choose to major in any department and then create an individualized plan to complete the courses required by professional schools.

The Health Professions Office within the Office of Career Counseling serves all students with an interest in medicine, veterinary medicine, dentistry, public health, and any allied health field. At every point, the Health Professions Advisor, Jane Cary, is available to discuss questions and strategies. The office conducts an orientation meeting for all interested students during First Days.

Overview

All medical, veterinary, and dental schools require at least eight semesters of laboratory science classes. These requirements include two semesters of biology, four of chemistry, and two of physics. Many schools also require courses in English and mathematics. Prerequisite courses can vary somewhat from program to program.

The balance of this section focuses on preparation for medical school, though this course selection advice is also appropriate for students interested in veterinary and dental school. Students interested in other health fields should consult with the Health Professions Advisor early in their Williams careers.

The application process for medical school takes over a year, so it is important to plan accordingly. To go directly from Williams to medical school, students will typically finish the science courses by the end of their junior year and take the Medical College Admission Test (MCAT) that spring. Other students elect to spread the prerequisite courses over all four years, building in some flexibility to pursue other curricular opportunities such as studying abroad. There is no advantage to rushing to enter medical school; indeed, the trend now is to take one or more years off after Williams before matriculating.

All medical schools are highly competitive, as there are at least two applicants for every matriculant. In the application process, schools consider both academic performance and motivation when making decisions. It is therefore important to do your best work in your classes, particularly in the prerequisite science courses. Schools focus on extracurricular activities that demonstrate relevant skills and personal qualities (e.g. leadership, empathy) and support an applicant's career decision. It is better to engage significantly in a few activities than to participate minimally in many.

Requirements

The admission requirements of most medical schools are satisfied by the following Williams College courses:

BIOL 101, 102	<i>The Cell, The Organism</i>
CHEM 151 (or 153 or 155), 156	<i>Concepts of Chemistry, Introductory Organic Chemistry</i>
CHEM 251 (or 255), 256	<i>Intermediate Organic Chemistry, Foundations of Modern Chemical Science</i>
PHYS 131, 132	<i>Introduction to Mechanics, Electromagnetism and the Physics of Matter</i>
ENGL 1XX, XXX	Courses with an emphasis on literature and composition. Many schools require two such courses; others permit one writing intensive course to substitute. (Note: these courses must be designated at Williams with a "W".)
MATH 10X, XXX	<i>Calculus</i> (the equivalent of Math 103-104) and another math or statistics course, such as STAT 101.

Certain students elect to take courses beyond the basic requirements, based on interest in the material and the additional requirements published by specific schools. Plan to meet with the Health Professions Advisor early in your Williams career to discuss these options. It is advisable for humanities majors to take at least one more science course beyond those required for medical school.

Typical additional courses might include:

PSYC 101 or SOC 101	<i>Intro to Psychology or Sociology</i>
BIMO 321 or 322	<i>Biochemistry I or II</i> (one "Biochem" course is required by some med schools)
BIOL 202	<i>Genetics</i>
BIOL 205	<i>Physiology</i>
BIOL 301	<i>Developmental Biology</i>
PSYC/BIOL 212	<i>Neuroscience</i>
BIOL 315	<i>Microbiology</i> (required by many vet schools)

In some cases AP or IB credit may be used, but it is not automatically accepted in lieu of a required course. AP is best used to place into an advanced section, as appropriate. Check with the Advisor for details.

In general, medical schools do not view favorably the taking of prerequisite courses overseas or during summer session. Schools are aware that in many instances the standards of these courses are not equivalent to courses offered in regular semesters. Except in those cases when the student must resort to summer courses because of a late decision to prepare for medical school, it is best to avoid them.

Your major is arguably the most important curricular decision in your college career, and among the least important factors in your medical school application. Professional schools do not prefer any particular major, though many eventual applicants major in the sciences as a result of their interests. In recent years, nearly every department on campus has been represented among medical school applicants.

Factors to consider when choosing courses:

1. In your first year, try to sample at least one course from each department that you see as a potential major.
2. You should elect no more than two laboratory science courses during each of your first-year semesters. Some students choose to take two science courses in their first semester at Williams, such as Biology 101 and Chemistry 151; others opt to take only one science course. Those students likely to do well in a single science course are also likely to do well in two taken simultaneously. Doing well in two laboratory courses taken concurrently requires excellent study habits and time-management skills. You are probably the best judge of whether you will thrive with a schedule that demands considerable time and effort in and out of class (including studying regularly, doing problem sets, and analyzing laboratory data).
3. Recognize that your first-year courses are part of a multi-year plan. It is helpful to list courses you need and courses you want, then arrange them into a semester-by-semester schedule. In this way, you can see how early choices affect later terms. Some students who enroll in only one science course at first later regret not starting with two laboratory courses, as it becomes significantly harder to complete the pre-medical requirements while at the same time balancing study abroad or double major plans. Other students regret enrolling in two science courses in the first semester, finding it difficult to adjust successfully to college life with such a demanding course load. For such students, it is realistic to take multiple science courses later on, when career goals are solidified and experience enables effective use of time.
4. Your early course choices should not over-emphasize pre-professional study because experience shows that many students reconsider their career plans as they develop other academic interests.
5. Students interested in study abroad during the junior year should consider Chemistry 151(F),156(S) during the first year in order to complete the four-semester chemistry sequence without interruption.
6. Choosing a 100-level English course in the first year is advisable, as entering students are given preference in many sections.
7. You are encouraged to consult with the Health Professions Advisor, with course instructors, with department chairs and with your First-Year Advisor as needed before making final decisions regarding courses.

The Health Professions advisor is Jane Cary. If you have additional questions, you should feel free to contact her via e-mail at JDC1@williams.edu. To make an appointment with Jane Cary during the academic year, call 597-2311. The Health Professions website, which offers general advice and guidance, can be found at http://www.williams.edu/go/careers/prehealth_welcome.php.