

## Pre-Professional Advising Guide

**A. Overview:** Competitive applicants to health-related professional schools usually possess the following record:

- High overall and science (BCPM: biology, chemistry, physics, and mathematics) GPA
- High score on standardized entrance exam
- Extensive record of relevant extracurriculars, including volunteering and/or working in clinical or research settings
- Demonstrated leadership activities

If students' records are strong in all of these categories, they will be strong candidates. Students should plan their academic course work as early as possible to prepare for their chosen programs. Students can major in almost any subject and attend professional school in the health sciences. However, they must complete and perform well in the required math and science course work for the specific schools to which they apply. When they select a major, students should consider if it will be suitable if they do not attend professional school.

Students' undergraduate curricula are partly intended to prepare them for the challenging course work of professional schools. Retention of the material is essential. Retention is not achieved by cramming but by consistent studying over an academic term. They should study three hours outside of class for every hour in class; for each three credit hour lecture, they should devote ninety minutes per day six days per week outside of class to that course.

**B. Professional school organizations:** These are resources for information in health profession education.

Physician (MD)	Association of American Medical Colleges ( <a href="http://www.aamc.org/">http://www.aamc.org/</a> )
Physician (DO)	American Association of Colleges of Osteopathic Medicine ( <a href="http://www.aacom.org/">http://www.aacom.org/</a> )
Dentist	American Dental Education Association ( <a href="http://www.adea.org/">http://www.adea.org/</a> )
Optometrist	Association of Schools and Colleges of Optometry ( <a href="http://www.opted.org/">http://www.opted.org/</a> )
Veterinarian	Association of American Veterinary Medical Colleges ( <a href="http://www.aavmc.org/">http://www.aavmc.org/</a> )
Pharmacist	American Association of Colleges of Pharmacy ( <a href="http://www.aacp.org/">http://www.aacp.org/</a> )
Podiatrist	American Association of Colleges of Podiatric Medicine ( <a href="http://www.aacpm.org/">http://www.aacpm.org/</a> )

**C. Timing:** **To have the best chance of being accepted and starting medical/professional school in the fall after graduation, students should take the appropriate entrance exam by the spring of their junior year.** This means most of the critically relevant scientific coursework (material covered on the exam) should also be completed by this time. While most deadlines for professional school aren't until the fall (varies by school, ranging from September 30 to December 31), applications can be submitted to most programs starting in June. Your application will not be reviewed until all of your material is submitted (including test scores and recommendation letter). Applications are typically reviewed in the order they are received, so it is advantageous to apply as early as possible. Particularly for MD programs, you want to ensure your application is complete by June (July at the latest). For example, if two students with similar records apply at different times in the admissions process, the student who applies earlier is more likely to be admitted.

**D. Course work:** The following courses are *typical* core requirements of many professional schools in the health sciences, including medicine, dentistry, optometry, pharmacy, and veterinary medicine. Students should check recognized resources of general information (*e.g.*, a current edition of *Medical School Admission Requirements*) for each type of program (medicine, pharmacy, etc.). Information of each school of interest (*e.g.*, Florida College of Medicine, Auburn College of Veterinary Medicine) also must be checked. Ideally students should complete these core courses before taking the required professional admissions test (ie, MCAT), typically in the spring of the junior year. Students should realize that certain professional schools may not recognize credits earned from AP exams or community colleges, especially if higher-level coursework in that discipline was not taken at a four-year college or university.

Biology	Chemistry	Physics	Mathematics
BIO 198 Gen. Bio I	CHE 152 Gen. Chem. I	PHY 200/205 Gen. Phys. I (with or without calc.)	MAT 260 Calc. I
BIO 199 Gen Bio II	CHE 154 Gen. Chem. II	PHY 201/206 Gen. Phys. II (with or without calc.)	
	CHE 232 Organic Chem. I		
	CHE 234 Organic Chem. II		
	CHE 320 Biochemistry		

In many instances, specific programs require additional courses. Students should check with individual schools regarding requirements (and other courses that are strongly recommended to give the applicant the best opportunity to be competitive for admission). For example, the Colleges of Medicine at University of Florida and Florida State University (and many others) highly prefer/recommend taking CHE 320L (Biochemistry lab). Available advanced elective courses at UT that may be of interest include, but are not limited to, the following:

BIO 220 Behavioral Bio.	BIO 307 Microbio.	BIO 320 Molecular Genetics	BIO 370 Molecular Bio.	CHE 420 Adv. Biochem.
BIO 230 Biostats	BIO 310 Develop. Bio.	BIO 330 Gen. Physiology	BIO 390 Electron Micros.	CHE 470 Tissue Culture
BIO 250 Comp. Vert. Anat.	BIO 315 Virology	BIO 350 Cell Bio.	BIO 400 Evolution	CHE 490 Mol. Basis Cancer
BIO 300 Gen. Genetics	BIO 317 Parasitology	BIO 360 Immunology	CHE 325 Bchm. Metab.	BIO 408 Bioinfo/Genomics

Most math and science classes have prerequisites. In addition, many courses are only offered during one term of the academic year. If students have a major outside of biology or chemistry, they may want to consult with a faculty member in one of those departments for advice in scheduling math and science courses.

**E. Standardized tests:** Students should be sure to take relevant coursework to prepare them for the standardized test for their discipline. The MCAT test for medical schools has been revamped considerably over recent years to account for newer, emerging trends in medicine. Areas of emphasis on the exam include sociology, psychology, and biochemistry. Courses at UT that should help students prepare for these changes are SOC 100, PSY 200, CHE 320 (and 320L), and CHE 325. For more information see: <https://students-residents.aamc.org/applying-medical-school/article/whats-mcat-exam>.

**F. Pre-Health Profession Committee (PHPC) letter:** Students attending the University of Tampa who intend to pursue professional doctoral studies in any of the health professions (medicine, dentistry, veterinary medicine, optometry, podiatry, and pharmacy) should request a letter of recommendation from the PHPC by **March 1, 2019**. **Please note that the PHPC does not typically write letters for students with BCPM GPA's below 3.2.** Students with a BCPM GPA below 3.2 are urged to contact the Co-Chairs of the PHPC for advising. Typically, such students are recommended to seek out individual letters of recommendation in lieu of a committee letter.

**G. Student organizations:** The on-campus organizations Skull and Bones and Alpha Epsilon Delta (AED) are for students intending to pursue a career in the health sciences. The groups hold joint meetings with a primary goal of educating their members about professional schools and providing relevant volunteer activities. Interested students may contact their faculty advisors or Dr. Ann Williams. Professional organizations, such as the American Society for Biochemistry and Molecular Biology (ASBMB) and the American Chemical Society (ACS), can also benefit students.

**H. Independent Research:** Students interested in professional schools in the health sciences are encouraged to engage in undergraduate research projects. These can be performed during the school year for credit (BIO 440, BIO 450, BIO 495, or CHE 451) or during the summer. In addition, competitive summer research fellowships are available through both the Biology and Chemistry departments. Students should discuss interest in research with a faculty member early for the best opportunity to secure a research project. Research Experiences for Undergraduate (REU) programs available at larger research institutions are also a great way to gain this type of experience - <https://www.nsf.gov/crssprgm/reu/>.

**I. Questions:** Feel free to contact a member of the Pre-Health Professional Committee. They are a resource for students interested in the health professions.

Dr. Jeffry Fasick (co-chair)  
Dr. Scott Witherow (co-chair)

Dr. Jeffrey Grim  
Dr. Michael Carastro

Dr. Ann Williams  
Dr. Padmanabhan Mahadevan