Amherst College Health Professions
Orientation 2019 • Welcome Class of 2023!
Professor William Loinaz and Dean Richard Aronson

The Amherst College Loeb Center for Career Exploration and Planning’s Careers In Health Professions program provides pre-health advising and mentoring throughout a student’s Amherst College years and beyond. The advising philosophy is interdisciplinary and holistic in nature, with the goal of promoting a collaborative culture that builds community among pre-health students and helping students understand that there are multiple paths to a health professions career, including paths other than medicine. We emphasize the development of qualities of empathy, kindness, respect, active listening, and humanism. The program is primarily educational in nature rather than just pre-professional. We not only advise but also mentor. And we’re dedicated to the overall College mission of supporting underrepresented groups and driving educational equity.

Many students choose to pursue a variety of jobs after graduation. A sampling of where Amherst College graduates pursue careers in health include positions at community health centers, clinical health care practices, public health, mental health, teaching, and healthcare in underserved communities. In addition to traditional allopathic medical school programs (MD degree), Amherst college graduates attend graduate and professional schools to pursue degrees in osteopathic medicine, nursing, physician assistant studies, veterinary medicine, public health, psychology, narrative medicine, medical anthropology, occupational and physical therapy, audiology and speech therapy, research science, and more.

Whether you have always known you wanted to be a physician, veterinarian, dentist, nurse, physician’s assistant, mental health professional, medical social worker, physical or occupational therapist, public health professional, etc., or if you are just interested in discussing your interest in health and healing or exploring in any way the possibility of a career in one of the health professions, Amherst College has information you’ll find useful, and people to help guide you throughout your time here.

People

Dean Richard Aronson, MD, MPH (raaronson69@amherst.edu) is the Health Professions Advisor and leads the Careers in Health Program at the Loeb Center. The Health Professions Advisor is the person to consult about overall pre-health advising throughout your Amherst College years, which includes how to plan for your pre-health coursework, approach making a career decision, such as deciding to enter the medical profession, or other health professions (including public and mental health), and how to find internships, clinical experience, shadowing, community service, research, and other opportunities to prepare you for a health career and to help you along in your decision making. Dean Aronson also works closely with students and recent graduates when they begin the process of applying to health professions schools.

- Meet with him at least once during your first year at Amherst, and at least once per year after that as well. Please schedule an appointment through the Loeb Center’s online platform Handshake (https://amherst.joinhandshake.com). Handshake is the main way to
• Dean Aronson’s office is in the Loeb Center in College Hall. Meetings typically last 30 minutes. He also holds drop-in hours for shorter meetings (15 minutes) on Wednesdays from 3:00pm to 4:30pm when classes are in session. If you can’t get an appointment with Dean Aronson as soon as you feel you need to, you may contact Rebecca Counter. She is able to answer some of your questions and, if a meeting with Dean Aronson is needed sooner, she can facilitate that. Be sure to sign the sheet at the meeting at Orientation so that you will be able to stay connected with us, and get added to the Pre-Health Email Newsletter. Please read the newsletter carefully. It comes out nearly every week during the academic year and contains valuable and important information.

The Health Professions Committee works with the Health Professions Advisor and Health Professions Specialist to prepare materials to support applications to health professions schools. Professor of Physics William Loinaz (waloinaz@amherst.edu/413-542-7968, Science Center A022), chair of the committee, is also available to help you, especially with your academic planning; feel free to email him for questions and to make an appointment.

Scheduling Your First Appointment at the Loeb Center

Please schedule an appointment with Dean Aronson via Handshake (https://amherst.joinhandshake.com). All first year students who are pre-health or thinking about it should meet with Dean Aronson this academic year.

If have any difficulties finding an appointment in Handshake (https://amherst.joinhandshake.com) that fits your schedule, feel free to reach out to Dean Aronson directly via email.

Coursework

Which courses should I take this semester?

There is no single answer to this question. Different academic paths are right for different students, as illustrated by examples in the Pre-Med Guide Part I. However, if you feel reasonably well prepared in science, and especially if you may want to major in science, consider taking:

(1) Chemistry 151 or 155, as placed by the Chemistry Department

(2) If the Math department says you should start with Math 111 or Math 105, take it this semester if you feel able to do so. Everyone goes at their own pace, so do what feels right for you. Consult with Dean Aronson or Prof. Loinaz if you have questions.

If you have “placed out” of Math 111 according to the Math Department, you’ve met the calculus requirement for medical school, and for the vast majority of schools, the math requirement as well. At this time, we recommend that you take a statistics course at some point during your college years. Note that while Biology 181 and 191 are available in the first semester, and Biology 191 in the spring semester, we recommend that pre-med students take just one lab course in their first semester, and that course should be Chemistry 151 or 155, depending on your placement.

Which courses must I eventually take?
Medical, dental, and veterinary schools require:

- MATH 111, or MATH 105 & 106 – this will satisfy the math requirement for almost all medical schools. These courses are prerequisites for Amherst chemistry and physics courses. Statistics is now STRONGLY recommended, though not required by all schools.
- 4 semesters of Chemistry with lab (CHEM 151 or 155, plus 161, 221, and 231). It is possible that in the future medical schools will accept biochemistry in place of the second semester of organic chemistry, but we're not yet at that point.
- 2 semesters of Physics with lab (PHYS 116 or 123, and 117 or 124);
- 2 semesters of Biology with lab (usually BIOL 181 and 191 – BIO 191 is required for all pre-medical students; in some cases, students may take an upper level biology course in place of Biology 181 – consult with Prof. Loinaz or Dean Aronson on that, and - see the Guide);
- Biochemistry (with or without lab);
- 2 semesters of English, or certain other courses that may be substituted. The English requirement is determined by the individual medical schools, not us. The safest path is to take 2 English courses or one English course plus one literature in translation course. For most medical schools, 1 English Department course plus one literature in translation course is fine.

In addition, note that while an introductory course in psychology is not currently required by most medical schools, the MCAT exam now has a section that covers topics in introductory psychology (and some sociology).

There are many different sequences by which students fulfill these requirements; the Guide provides examples. Many medical schools either require a course in statistics or view such a course favorably. We expect requirements for statistics to also become more common. Some veterinary schools require a few additional courses that you might have to take elsewhere, e.g. at one of the other Five Colleges.

**The Guide**

An important source of information, especially for pre-medical students, is the Amherst College Guide for Pre-medical Students (https://www.amherst.edu/mm/81988), a website you should visit and study thoroughly. The Guide answers many questions you will have about scheduling courses, getting clinical experience, and applying to health professions schools when the time comes. Read it soon!

**Important Points**

Don't rush through the pre-medical course requirements. Everyone goes at their own pace. We advise not taking two laboratory courses in the same semester until you’re ready. This is very important! Adjusting to college life and to the academics of Amherst takes time. Many students will have a more enjoyable, successful, and positive academic experience if they slow down their pace of taking the pre-med courses and resist the temptation to overextend themselves.

Study abroad is strongly encouraged for pre-health students at Amherst. Meet with Dean Aronson on how you can arrange your schedule to do study abroad.
In general (there are exceptions), double majoring and doing the pre-med coursework is not recommended. It, in essence, means that you end up with three majors (the pre-med coursework itself in effect “counts” as the equivalent of a major), leaving little room for the thorough exploration of the curriculum that provides such great opportunities for your Amherst education.

*It’s healthy and okay to go through periods when you’re not sure that you want to pursue medicine or other health profession. Exploration is an important part of your education here, and we encourage it. Students decide for sure that they want to pursue medicine at different times – from before college all the way to several years after college. Go at your own pace.*

**Frequently Asked Questions**

*May I use Advanced Placement to satisfy medical school requirements?*

Again, the *Guide* has all the details, but the bottom line is that you need to have at least four semesters of Chemistry, two of Physics, and two of Biology, all with lab, and Biochemistry (with or without lab). Even if you have advanced standing in one or more of these subjects, most medical schools will not accept you unless your college record includes the number of courses listed above in Biology, Chemistry, Physics, and English. You may take advanced courses if you are exempted from introductory ones by the departments concerned, but you can’t simply omit the required number of courses based on your advanced placement. In Math, however, official placement is usually acceptable; see the *Guide* for more information about math placement.

*What should I major in if I want to enter medicine or one of the other health professions?*

Major in a subject that interests you! Humanities or social science majors are not at a disadvantage when applying to medical school, if they have done well in the required pre-med science courses. Of course, if you like studying a particular science subject, choose it as your major. If you major in Biology, Chemistry, Physics, Biochemistry/Biophysics, or Neuroscience, some courses you take as major requirements will count as pre-med requirements. You would almost certainly major in science if you’re interested in medical research/pursuing an MD/PhD.

**Some advice for the long term…**

Now that the most pressing questions are out of the way, here is some advice that we think will be helpful beyond your first weeks at Amherst, in the form of five things we’ve noticed that many successful pre-medical students do. Consider following in their footsteps!

1. **They engage enthusiastically in their whole undergraduate education.** They choose a major—science or non-science—that interests them, and pick challenging courses outside the major that also interest them. Because they're interested in learning, they do well in their courses. Their professors get to know them and can provide them with strong recommendations.

2. **They do well in the required pre-medical science courses.** Whether their major is in science or non-science, they have ability and genuine interest in scientific understanding that shows in their work in the required pre-med courses. Also, they go at their own pace. For some students, this means not piling up the pre-med science courses early on, but first learning to pace yourself.
They show accomplishment and leadership outside the classroom. They get involved in a sustained way doing something worthwhile and interesting that they love doing and are good at doing—volunteering, mastering a musical instrument and performing, doing research, or many other things. There are excellent opportunities on campus: Public Health Collaborative, GlobeMed, Charles Drew Health Professions Society, the Kidney Project, and Pre-Health Peer Mentoring are examples. Engaging in community service is an essential part of preparing for medical school or, for that matter, any health profession. If you’re interested in being a mentee in the peer mentoring program, see Dean Aronson.

They have contact with doctors, other health professionals, and hospitals. During the two or three years prior to applying to medical school, they shadow, intern, work, or volunteer with doctors and/or in hospitals.

They often apply to enter medical school later than the fall immediately after graduation. Applying for admission a year or two or three after graduation enhances their qualifications, and they’re not behind in their career—the average age of all first-year medical students in the U.S. is now 24 to 25. If they are prepared and motivated to plunge right into the pre-medical science courses when they arrive at Amherst, and have a clear and nuanced commitment to what lies ahead, that’s fine. But many who are later successful in being accepted don’t feel so prepared or motivated or clear at first, and they take the courses when they are prepared and motivated.

More questions...

- Is it all right to take pre-med courses in summer school?
- Will it improve my chances for acceptance if I double major?
- Can I study abroad for a semester or a year and still complete premed requirements?
- What is the MCAT exam and how should I prepare?
- What are my chances of getting into medical school if I have a “B” average at Amherst?

These questions and many more are answered in the Guide - read it! We encourage you to take advantage of the liberal arts curriculum at Amherst and take a wide breadth of courses. Consider going out of your comfort zone in your course selection.

We look forward to working with you as you prepare to enter one of the health professions. Don’t hesitate to contact or visit us when you have questions.