



Health Professions
Program at
Dartmouth College



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Welcome to
Dartmouth's Pre-Health Community!
**Health Professions Program, Career Services & The Nathan
Smith Society**

Five (5) tips to keep in mind from the start:

1. **Meet with a Health Professions Advisor at Dartmouth.** There is NO ONE WAY to prepare for a career in the health professions – each individual career path is different. A combination of experiences both in and out of the classroom will offer you the opportunity to decide whether you want to proceed in the direction of a health career and the timetable over which you want to do that. *To “chart” your own individual experience, both to test your interest in the health professions and to prepare you, based on classroom and extracurricular experiences, to be a successful applicant, it is imperative that you interact with a knowledgeable health career advisor both at the beginning of and THROUGHOUT your time at Dartmouth.* You will receive “advice” from many as you think about these things (parents, peers, departmental faculty, deans, administrators, popular press); while there is value in each of these opinions, ALWAYS confirm that advice with an experienced advisor before making any substantive decisions.
2. **Dartmouth does not have a standard “pre-health” curriculum.** Successful medical school and health program applicants have majored in every discipline available at Dartmouth. Choose courses and a major that you enjoy and want to explore. *Specific courses are, however, required for admission. The demonstration of scientific aptitude through good performance in these courses is essential for successful application.* Work with a knowledgeable advisor to schedule and pace your science courses according to a plan that best suits your educational program.
3. **Consider applying to medical school or health programs after graduation.** Most of our students (80%) delay some required courses until senior year (or even later) and plan to enter medical/vet/dental school after a year or more of work or graduate study. Many also choose to complete course work after graduation in post-baccalaureate programs or to use post-graduate course work to strengthen their classroom credentials (and preparedness of MCAT/DAT/GRE exams). Follow your own interests and do not sacrifice courses, off-campus programs, or extracurricular activities in order to rush through the pre-health requirements. At the very least, discuss this option EARLY with one of the pre-health advisors to see which time frame(s) might be best for you. There is NO ONE WAY to be successful in your eventual application.
4. **Get to know your professors as you proceed through the Dartmouth curriculum.** The faculty is a rich resource of advice and guidance for the pre-health student. *In addition, the eventual application process for medical school and other health-related professional schools relies heavily on letters of recommendation from faculty and others.* Develop relationships with your faculty. If you get to know them *before* you need letters of recommendation, they will be able to offer not only evaluative information regarding your class performance, but also information on the kind of person you are and your suitability for a career in the health professions. Utilize office hours and out-of-classroom contacts to get to know the faculty better. **A good rule: Get to know ONE faculty member well each term.**
5. **Plan to participate in extracurricular activities involving medicine, health and service to others throughout your time at Dartmouth.** Participation in extracurricular activities is perhaps the best way to explore whether a career in the health professions is for you. Possibilities to consider: volunteering in a clinic or hospital, doing research in a biomedical laboratory, observing patient care close up (MD/vet/dentist/ others), doing an internship in a health- or human-service related field, etc. The demonstration of your care and concern for others is also extremely important. Do these things throughout your time at Dartmouth, not just for a term or two.

Resources for Students Interested in the Health Professions

Over 1100 Dartmouth undergraduates each year have some potential interest in a career in the health professions.

These careers include:

- Allopathic Medicine (MD)
- Dentistry
- Nursing
- Physical Therapy
- Physician Assistant
- PhD and other Graduate Health Programs
- Public Health
- Osteopathy
- Veterinary Medicine
- Other Healthcare Fields

Support of this group of students (and of recent Dartmouth College alumni) is complex and involves information about coursework, extracurricular activities and the actual process of application to a graduate/professional school program. The **Health Professions Program** is an important resource for information and support and is composed of faculty, administrators and students from across the Dartmouth campus representing all these interests.

Students who are considering medical/dental/vet or other health professional school should connect with the Health Professions Advisors early and throughout their Dartmouth experience. Though a healthcare career path may begin later, decisions made early affect long-term career options.

HEALTH PROFESSIONS PROGRAM OFFICE AND RESOURCE CENTER: 10 & 11 Parkhurst

**Walk-in Office Hours: Monday & Thursday, 1:30-4 (Stacy Barton)
Tuesday & Wednesday, 4-5:30 (Lee Witters)**

Use walk-in hours to check-in, review your DPlan, discuss curricular and extracurricular activities, to begin your individual career exploration, or to create an action plan for your future career in the health professions. If a longer appointment needed, we can arrange it during this visit.

HEALTH PROFESSIONS PROGRAM ADVISORS AND PERSONNEL

Stacy Barton, Health Professions Advisor; Assistant Director, Career Services
Office: Career Services, 63 S. Main St. 2nd Floor of Bank of America Building; Phone: 646-3377

Dr. Lee Witters, MD, Professor of Medicine, Biochemistry and Biological Sciences
Office, 322 Remsen, DMS Phone: 650-1909

Annette Hamilton, Health Professions Coordinator
Office: Career Services, 63 S. Main St. 2nd Floor of Bank of America Building; Phone: 646-3377

MAPS PINPOINTING THE LOCATIONS OF THESE OFFICES CAN BE FOUND ON THE NATHAN SMITH SOCIETY WEB PAGE (www.dartmouth.edu/~nss)

Additional Resources

In planning a Dartmouth curriculum and in seeking opportunities that would allow you to test your interest in the health professions, the following points of contact and/or information will be very helpful:

1. Nathan Smith Society

A student-led campus organization of >1100 students with diverse interests in health careers. The central source of information and events related to the health careers. Lee Witters, MD is the faculty advisor.

Joining the NSS email (“blitz”) list is all that is required to become a member of NSS.

If you did not sign up at the orientation meeting, blitz “nss” to join.

2. Dartmouth College Career Services (www.dartmouth.edu/~csrc)

The place to go for comprehensive advice about career planning and how to develop your Dartmouth curricular and extracurricular experiences. Meet personally with advisors, read important documents on developing your resume, key course scheduling information, establishing a credential file for letters of evaluation, finding internships and much more! Also connect with over 23,000 alumni for career advice through the Dartmouth Career Network!

3. Nathan Smith Society web site (www.dartmouth.edu/~nss)

While this site does emphasize medical school, there are many valuable links to the other health career professions. If your interest is in veterinary or dental medicine, you will find ways to connect with their individual programs at Dartmouth. You’ll find information on curricular options, extracurricular experiences and details of the application process.

Go to the web site **NOW** and click on the link entitled “ADVICE FOR ENTERING STUDENTS”, accessible from the home page, to review lots of valuable information about planning your curriculum and extracurricular activities. Explore the rest of the web site for information and links about additional health career opportunities.

4. The NSS Blackboard Site is a complement to the regular NSS site, permitting easy access to some basic information from your Blackboard home page AND providing a great forum for peer interchange of information through posting of questions, sharing a great pre-health experience, and helping in planning for NSS programs. We hope this “discussion format” will help to build a better community of pre-health students. Post your questions for our advisors and fellow peers!

Students must “self-enroll” to gain access to the NSS Blackboard Site. To accomplish this, log into our regular website, click on ‘NSS Blackboard Site’ and follow the instructions.

5. Academic Skills Center (www.dartmouth.edu/~acskills)

The pre-health career curriculum is a challenging one and students often need assistance in becoming more efficient and effective learners. Improve your academic skills and your ability to learn. Explore tutoring services and the Academic Enhancement Library. The Academic Skills Center is a wonderful resource to help you succeed at Dartmouth.

6. Student Center for Research, Writing, and Information Technology (<http://www.dartmouth.edu/~rwit/>)

Effective writing and communication skills are important as you prepare for a future in the health professions. RWiT is a place where you can meet with an undergraduate tutor to discuss a paper, research project, or multi-media assignment. Tutors are trained to help you at any phase of your process. Whether you are brainstorming or planning, drafting or structuring, tweaking or polishing, tutors can provide feedback that will help you to create final products of which you can be proud.

7. Tucker Foundation (www.dartmouth.edu/~tucker)

The Tucker Foundation challenges students to explore places in the heart, spirit and mind that will help them serve as humane, thoughtful and just leaders. Explore opportunities locally, nationally and internationally for volunteer service, community service leave term internships, and fellowships. A MUST stop for the pre-health career student.

COURSE REQUIREMENTS FOR PRE-HEALTH STUDENTS

Students should check in with an advisor ONCE OR TWICE PER YEAR to verify that they are taking appropriate courses.

The following courses should be completed before you take the required admission test (MCAT, DAT, GRE) and apply to health professional school. These courses are considered an adequate minimum basic preparation by most medical schools, although a few schools have additional course requirements. To obtain information about specific schools, refer to the current edition of the *Medical School Admission Requirements, Admission Requirements of U.S. and Canadian Dental Schools; or Veterinary Medical School Requirements* for required and recommended courses. **An Excel document that lists course requirements for specific medical schools is accessible from the home page of the Nathan Smith Society web site (www.dartmouth.edu/~nss).**

ENGLISH

☐ Two terms are required by most schools. Writing 5 and First-Year Seminar are satisfactory. If you are exempted from Writing 5, you must complete another course in literature in the English language; speak to a Health Professions Advisor as to which courses are acceptable.

MATHEMATICS

☐ Two terms recommended by most schools; required by 20% of the schools. Several possibilities: **Math 3** (or **Math 1&2**) and **8 or 3** plus a non-calculus math course, such as **Math 10** (Statistics); AP + **Math 10**; or **two terms AP** (if AP is accepted by the med school in question). Note: Math 10 is equivalent to Socy 10, Econ 10, and Psych 10 in terms of this requirement. Bio 29 ('Biostats') is also a good option for biologically relevant applications. Many schools require one term of calculus and some require statistics.

Note: You must complete Math 3 prior to enrolling in Chem 5.

BIOLOGY

☐ **Two (2) terms with laboratory** is the minimum requirement at most schools. All **students** wishing to satisfy this requirement **must first take Biology 11** ('The Science of Life'). This course, offered 4 times per year **without** a lab, focuses on problem-solving in Biology and prepares students to take the **required** laboratory-based courses. One can then choose among **5 laboratory-based courses (BIOL 12-16)** to satisfy this minimum requirement with many students choosing two courses between Biology 12 ('Cell Biology'), Biology 13 ('Genetics') and Biology 14 ('Physiology').

We feel that all students should take Bio 13 ('Genetics') and that, if they plan to take only the minimum number of lab-based courses, that either Bio12 ('Cell Biology') or Bio 14 ('Physiology') is an acceptable 2nd course. However, **strong consideration** should be given to taking all three of these courses and certainly more than the minimum both for MCAT success and for success in the graduate curriculum. Other courses in Biology are **strongly recommended** and can be chosen from among BIOL 24, 27, 34, 35, 36, 37, 40, 42, 44, 46, 47, 66, 67, 69, 74, 78, or 79, among others. Students **should consider** including a course that *emphasizes physiology and anatomy*, such as BIOL 2, 14 and 35, since these subjects are frequently represented on the MCAT exam. Students who are uncertain about their interest in a health career or feel they have weak backgrounds in Biology prior to matriculation or who are hesitant about college science courses in general should consider **Bio 2** ('Human Biology') as their entry course in the fall of their first year.

Note: The laboratory-based courses, Biology 12 to 16 can be taken in any order after completing Biology 11.

Note: Most Vet schools also require Bio 46, Bio 40 and another course with biochemistry emphasis (e.g. Bio 66, 69 or Bio 78).

CHEMISTRY

☐ Two (2) terms of General Chemistry: **Chemistry 5&6**; or **Chemistry 10** (which carries two terms of general Chemistry credit).

Note: If you have been invited into Chemistry 2, you must complete Chemistry 2 prior to enrolling in Chemistry 5. Chemistry 2 emphasizes the quantitative and analytical aspects of general chemistry. Invitation to enroll is based on your pre-matriculation mathematics and science record.

☐ Two (2) terms of Organic Chemistry: **Chemistry 51&52** or **Chemistry 57&58**

Note: If you choose to delay general chemistry until sophomore year and you plan to enter med school in the fall after you graduate, you could lock yourself into scheduling six consecutive enrolled terms without an off-term.

PHYSICS

☐ Two terms of Physics: **Physics 3/4**; **Physics 13/14**; or **Physics 15/16**.

BIOCHEMISTRY

☐ Currently, 14 medical schools REQUIRE a course in Biochemistry, and an additional 90 schools recommend it. **Bio 40** or **Chem 41** would meet this requirement. It is a course to seriously consider, as having this background is really of great value in the first year of medical school

These are **minimum** science requirements. If your grades in these courses are good and your schedule is filled with courses necessary for your major, you need not go beyond these unless an individual school of your choice has additional prerequisites. If your record does not clearly establish competency in laboratory sciences, you should include more upper-level science courses. Additional biology and/or chemistry courses are recommended by most schools and required by a few schools. **Check individual school requirements in the current edition of the Medical School Admission Requirements, on the NSS web site or in the dental or veterinary medical school directories.** For students preparing for veterinary medical schools, prerequisite courses differ from school to school, but **most include courses in microbiology and biochemistry.** Learn the requirements of the schools of your choice during your first year.

TIMETABLE OF COURSE OFFERINGS

*****Develop a plan or plans how you might use this table with a knowledgeable pre-health advisor.*****

	Fall	Winter	Spring	Summer
2009-2010	BIO 2 (11) non-lab BIO 11 (10, 10A) non-lab BIO 12 (9L) BIO 40 (10) non-lab CHEM 2 (10) CHEM 5 (10) CHEM 51 (11) CHEM 57 (11) PHYS 3 (12) PHYS 13 (10, 11) PHYS 15-Honors (10) MATH 1 (11,12) MATH 3 (9L,11) MATH 8 (10,11,12)	BIO 11 (10A) non-lab BIO 13 (9L) BIO 14 (10) CHEM 5 (9L,10) CHEM 52 (11) CHEM 58 (11) PHYS 4 (12) PHYS 13 (10, 11) PHYS 14 (10) PHYS 16-Honors (10) MATH 2 (9L, 11) MATH 3 (10) MATH 4 (10A) MATH 8 (12, 2)	BIO 11 (10A) non-lab BIO 12 (9L) BIO 37 (10A) CHEM 6 (9L,10) CHEM 41 (12) CHEM 51 (11) PHYS 4 (12) PHYS 14 (10,11) MATH 8 (11, 2) MATH 10 (2)	BIO 13 (10) BIO 14 (10A) CHEM 52 (11) PHYS 3 (11)
2010-2011	BIO 2 non-lab (11) BIO 11 non-lab (10,10A) BIO 12 (9L) BIO 40 non-lab (10) CHEM 5 (10) CHEM 51 (11) CHEM 57 (11) PHYS 3 (12) PHYS 13 (10,11) PHYS 15 (10) MATH 3 (arrange) MATH 8 (arrange)	BIO 11 non-lab (10A) BIO 13 (9L) BIO 14 (10) CHEM 5 (9L, 10) CHEM 52 (11) CHEM 58 (11) PHYS 4 (12) PHYS 13 (10, 11) PHYS 14 (10) PHYS 16 (10) MATH 3 (arrange) MATH 4 (arrange) MATH 8 (arrange)	BIO 11 non-lab (9L) BIO 12 (9L) BIO 35 (11) BIO 37 (10A) CHEM 6 (9L, 10) CHEM 41 (12) CHEM 51 (11) PHYS 4 (12) PHYS 14 (10, 11) MATH 8 (arrange) MATH 10 (arrange)	BIO 13 BIO 14 CHEM 52 PHYS 3
2011-2012 *All courses for 11/12 & 12/13 are tentative and subject to change. It is essential that students review the ORC and check with an advisor before mapping out a D-Plan past the 09/10 academic year.	BIO 2 non-lab BIO 11 non-lab BIO 12 BIO 40 non-lab CHEM 5 CHEM 10 CHEM 51 CHEM 57 PHYS 3 PHYS 13 PHYS 15 MATH 3 MATH 8	BIO 11 non-lab BIO 13 BIO 14 CHEM 5 CHEM 52 CHEM 58 PHYS 4 PHYS 13 PHYS 14 PHYS 16 MATH 3 MATH 4 MATH 8	BIO 11 non-lab BIO 12 BIO 37 CHEM 6 CHEM 41 CHEM 51 PHYS 4 PHYS 14 MATH 8 MATH 10	BIO 13 BIO 14 CHEM 52 PHYS 3
2011-2012	BIO 2 non-lab BIO 11 non-lab BIO 12 BIO 40 non-lab CHEM 5 CHEM 10 CHEM 51 CHEM 57 PHYS 3 PHYS 13 PHYS 15 MATH 3 MATH 8	BIO 11 non-lab BIO 13 BIO 14 CHEM 5 CHEM 52 CHEM 58 PHYS 4 PHYS 13 PHYS 14 PHYS 16 MATH 3 MATH 4 MATH 8	BIO 11 non-lab BIO 12 BIO 37 CHEM 6 CHEM 41 CHEM 51 PHYS 4 PHYS 14 MATH 8 MATH 10	BIO 13 BIO 14 CHEM 52 PHYS 3