

Welcome to Hamilton College and the health professions advising program. Hamilton offers a multitude of opportunities to help you prepare for your desired profession, and there is no one formula you must follow to find success. Many of you are certain of the profession you want to pursue, and others have many possible careers to investigate before a choice is made. The health professions advising program is here to guide you. We will present programs throughout the year to give you information, and you will have every opportunity to choose classes that are meaningful to you while you develop the strongest credentials possible. Whether you're interested in dentistry, medicine, physical therapy, physician assistant programs, public health, veterinary medicine or any of the other health professions, our advising program is designed to offer you information, encouragement and guidance, will help you gain practical experience, and will assist you in your post-graduate planning. It is your responsibility, however, to seek advising and make your questions known.

The Health Professions Advisory Committee

Leslie North, the Coordinator of Health Professions Advising, chairs the Health Professions Advisory Committee. Her office is in Science Center #1005, and you can make an appointment with her any time you wish to discuss your plans, seek advice on course choices, or plan summer activity. Ms. North is prepared to assist you in drawing up a tentative four-year plan, an exercise that can be especially useful for students who intend to study abroad. You'll find a sign-up sheet for appointments outside Ms. North's office. Feel free to call on her, or any member of the Health Professions Advisory Committee, for advice and support.

One of the main functions of the Health Professions Advisory Committee is to prepare a committee recommendation supporting each applicant's candidacy to professional school in the health sciences. The recommendation is designed to present a complete description of your accomplishments. In order to do this, the committee reviews the academic records and supporting letters from professors, employers and coaches, reviews each candidate's extracurricular and co-curricular resume, and the disciplinary records of the College.

The members of the Health Professions Advisory Committee are:

Leslie Bell, Associate Director of the Career Center
Robert Kantrowitz '82, Professor of Mathematics
Robin Kinnel, Childs Professor of Chemistry, and past Chair of the HPAC
Tara McKee, Assistant Professor of Psychology
Sue Ann Miller, Professor of Biology
Leslie North, Chair, Coordinator of Health Professions Advising
John O'Neill, Leavenworth Professor of English
Ann Silversmith, Professor of Physics
Douglas A. Weldon, Stone Professor of Psychology

Course planning—the requirements

You need not major in science to apply to medical/dental/vet school. You must, however, take the required courses in the basic sciences to qualify for admission. The minimum requirements established by every medical and dental school are:

- Two semesters of English: English 150 plus one other course in English; or any combination of classes in the English and Comparative Literature departments. Writing 110 will satisfy one of the English requirements.
- Two semesters of Biology: Biology 115 (for students with strong results in AP Bio) and an elective; or Bio 101 and 102.
- Two semesters of Physics: Physics 100-105 (algebra-based) or Physics 190-195 (for possible Physics majors) or Physics 200-205 (calculus-based physics sequence designed for premeds).
- Four semesters of college Chemistry: Chem 120 (or 125 for students with a strong background), 190 (Orgo I), 255 (Orgo II), and one of either 265 (Inorganic and Materials) or 270 (Biological Chemistry).

In addition, many medical schools ask that you demonstrate proficiency in mathematics. For students who wish to minimize mathematics, we suggest one semester of calculus and one semester of statistics. Additional courses recommended by medical schools include biochemistry (now a requirement at a few schools), psychology, social sciences, and humanities. Several vet schools require biochemistry, microbiology and genetics. All professional schools value the critical thinking and communication skills you will acquire in the normal course of completing a degree at a challenging liberal arts college.

Please contact Leslie North for specific information pertaining to veterinary medicine, physical therapy, nursing, optometry, pharmacy, physician assistant, or other health related programs. Although the requirements are similar to those listed above, they are not identical.

Course planning—your concentration

All the health professions seek students who are broadly educated and who do well in the required science courses. There is no one “right” major that will gain you admission. Statistical data comparing the undergraduate concentrations of the 42,269 candidates who applied for entrance to medical school in 2009 show that candidates majoring in the humanities were accepted at rates at least as high as those who majored in science. This means that students majoring in Spanish or English were as likely to be admitted to medical school as those majoring in Chemistry or Biology.

In choosing your concentration, we encourage you to select a discipline that you find exciting and challenging and one in which you think you can excel. If you choose a major that is not interesting to you, you risk doing less than your best, thereby hurting your credentials. The bottom line is that you should *not* choose a major by statistics or to impress an admissions committee. Choose a major you enjoy. Make decisions based on your preferences and personal strengths.

The absence of distribution requirements at Hamilton College is a great benefit to premed students. Here you can immediately begin exploring possible majors and, at the same time, start completing courses that are required for professional school.

Whether or not you have decided on a major, you should begin planning your coursework early. Try to make a tentative plan for all four years at Hamilton. Keep in mind that you will want to be preparing for entrance to graduate programs and simultaneously getting the most out of the academic and extracurricular opportunities Hamilton offers. Some things you should consider as you plan your coursework over the long term are:

- What are your academic and personal strengths and weaknesses?
- How strong was your secondary preparation in various subjects?
- What are your likely majors?
- Do you want to spend a semester or an academic year studying abroad?
- Are you planning to participate in varsity sports?
- How will you use your summers and vacations to explore the field of medicine?

Your plan for your coursework will also depend greatly on *when* you plan to enroll in professional school. In the United States the majority of students entering medical schools do not enroll directly after graduating from college. Many Hamilton graduates choose to spend a year or two doing medical research, participating in service programs (AmeriCorps, Teach for America), accepting a Fulbright or Watson Fellowship, or working in the field of their choice. Whenever you apply, as long as you have taken at least half the premedical requirements here, Hamilton College will help you with the application process and prepare your recommendation.

We suggest that you elect the required premedical courses in whatever pattern will allow you the best mastery of the material. The MCATs (DATs for dental) are achievement tests that will measure your knowledge in the physical and biological sciences, as well as your writing and verbal reasoning ability. Medical schools don't care whether you choose to take the premedical courses within the first two or three years, or spread them out over four years or five. They do want you to see a record that documents your ability to do well in a challenging curriculum.

If you are determined to enter medical school immediately after graduation, you must take the eight basic science courses within three years to be prepared for the MCAT in spring or early summer of your junior year. This means doubling up on sciences somewhere along the line. To help you present excellent credentials when you apply, it's a good idea to begin fulfilling the science requirements in your first year. You can decide to elect two sciences in your first year if you are fairly certain of your desired major. Other students will want to choose one science and explore potential majors. Students who plan to study abroad gain the greatest flexibility by choosing two sciences in the first year. Those who plan to make a significant commitment to an extracurricular activity, such as a fall or winter sport, should consider whether they will have sufficient time to do well if they elect two sciences/two labs at the same time they are making the transition to college. Remember that you are establishing a resume of credentials that will play an important role in determining your acceptance to professional school. Choose your courses thoughtfully. Advising is a highly individual process, and each student is different. Students should feel free to call on both their primary faculty advisors and Leslie North for assistance in planning a program that is tailored to their personal needs.

Schedule A and B demonstrate a path to taking the MCAT/DAT in the spring/summer of the junior year and to attend grad school immediately after graduation. These schedules are appropriate for students who have enjoyed the sciences and are fairly certain they know their intended major:

Schedule A	<i>Fall semester</i>	Year 1 Chem 120/or125 Biology 101 or 115 Math or Elective	Year 2 Chem 255 (Orgo II) Major Elective	Year 3 Physics 100 or 200 Major Major Elective	Year 4 Major Senior Project Elective/Major Elective
	<i>Spring semester</i>	English or Elective Chem 190 (Orgo I) Biology 102 or other Math or Elective Elective	Chem 265 or 270 Major English/Comp. Lit Elective	Physics 105 or 205 Major Elective Elective MCAT/DAT	Major Senior Project Elective Elective
Schedule B	<i>Fall semester</i>	Year 1 Bio 101 or 115 Physics 100/190/200 Math or English Elective	Year 2 Chem 120 Elective Major English	Year 3 Chem 255 (Orgo II) Major Major Elective	Year 4 Major Senior Project Elective/Major English
	<i>Spring semester</i>	Biology 102 or other Physics 105/195/205 Math/Elective Elective/Major	Chem 190 (Orgo I) Elective Elective Major	Chem 265 or 270 Major Major Elective MCAT/DAT	Major Senior Project Elective Elective

There are myriad paths to professional school. The following schedules demonstrate paths that allow students to explore various disciplines before declaring a major, and are appropriate for students who have not had advanced work in the sciences in high school, or have made a significant extracurricular commitment:

Schedule for students interested in exploring a health career--MCAT in Spring of Senior Year

Schedule C	<i>Fall semester</i>	Year 1 Bio 101 English Elective Elective	Year 2 Chem 120 Elective Elective Elective	Year 3 Chem 255 Elective Major Major	Year 4 Physics 100/200 Senior Project Major Major
	<i>Spring semester</i>	Bio102 Elective Math Elective	Chem 190 Elective Elective Elective	Chem 265 or 270 Elective Major English	Physics 105/205 Senior Project Major Elective MCAT/DAT

Schedule for exploring a health career--MCAT in Spring of Junior Year

Schedule D	<i>Fall semester</i>	Year 1 Chem 120/or125 English Elective or Math Elective	Year 2 Chem 255 (Orgo II) Elective Major Elective	Year 3 Bio 101 Physics 100/200 Major Elective	Year 4 Major Senior Project Major Elective
	<i>Spring semester</i>	Chem 190 (Orgo I) Elective/Major Elective or Math Elective	Chem 265/or 270 English Major Elective	Bio 102 Physics 105/205 Major Major MCAT/DAT	Major Senior Project Elective Elective

Schedule for a semester abroad —MCAT in Spring of Senior Year

Schedule E

Fall semester

Year 1

Physics 100/190

Biology 101/115

Math

English

Spring semester

Physics 105/195

Biology 102 or other

Math

Elective

Year 2

Chem 120

Elective

Major

Elective

Chem 265

Major

English

Elective

Year 3

Semester Away

Chem 190 (Orgo I)

Major

Major

Elective

Year 4

Chem 255 (Orgo II)

Senior Project

Major

Major

Major

Senior Project

Major

Elective

MCAT

Alternate Schedule for a semester abroad —MCAT in Spring of Senior Year

Schedule F

Fall semester

Year 1

Chem 120/or 125

Biology 101/115

Math

English

Spring semester

Chem 190

Biology 102 or other

Elective

Elective

Year 2

Chem 255

Elective

Elective

Elective

Chem 265 or 270

Major

English

Elective

Year 3

Major

Major

Elective

Math

Semester Away

Year 4

Physics 100/200

Senior Project

Major

Elective

Physics 105/205

Senior Project

Major

(Elective

MCAT study

faq's

What are the consequences of taking premedical courses at another institution during summer school?

All other things being equal, it is better to take your required premedical courses at Hamilton. First, by taking these courses at Hamilton, you will have professors on campus who know you well in the courses of greatest interest to the admissions committees. Through these professors and their letters, the Health Professions Advisory Committee will know you better and will be able to make a more convincing recommendation to the medical schools that you are applying to. Second, summer school courses are usually not as thorough as semester-long courses, so you won't learn as much. This is particularly important in the required courses, since these courses prepare you to do well on the MCAT/DAT examination and in professional school.

I have been advised to avoid taking two laboratory courses during my first year at Hamilton. Is this a good idea?

The right schedule for you will depend upon your individual circumstances, interests and background. Students who love science, are confident of their study skills, and are eager to attend medical school directly after college should choose two sciences. Do not feel pressure to conform to any formula that doesn't feel right to you. Take the classes that you are excited about, and make a commitment to do your best in them. For many health professions students, science comes more easily than French, English or art history. Be yourself.

I did not decide to pursue medical school until my junior year at Hamilton, and I have not fulfilled many of the requirements? What do I do?

There are several options. First, you can apply to medical school a year or two after graduation. If you have not completed your premedical course requirements by the time of your graduation, then you might consider enrolling in one of the many post-baccalaureate premedical programs that are available. Second, it is possible to take one or more of the courses during the summer school programs, although there are certain disadvantages to that plan (see first FAQ above). See Leslie North to devise a plan of action.

How does AP credit affect required courses?

Advanced Placement credit does not substitute for a course taken in a college environment. If you are confident of your mastery of the AP content, take a higher level class in the same department. (Bio 115 is designed for students with a 4 or 5 on the AP Biology test; Chem 125 is designed for students with a strong background in chemistry.) You can choose to retake any AP class at Hamilton if you are not certain of your mastery. Medical schools want evidence of ability at the college level and in a college environment with the required subjects (biology, chemistry, physics, English, math). Hamilton’s curriculum is designed for students who bring advanced work, and our advising system and placement tests in mathematics and foreign languages will make certain you continue to find challenge.

Timetable for applying to medical schools

We’ve already made the point that pursuing entrance to medical programs takes several years of planning and persistence, and that most students do not attend professional school immediately after graduation from college. The actual application process to medical or dental school will take about 18 months. To show you the sequence of activities, here is a schedule for those applying to attend medical school directly after graduation:

Time	Your action	Committee Action
Fall term, junior year	Decide whether to pursue admission in this application cycle; prepare resume	L North meets with you to discuss timetable
January of junior year	Complete HPAC Questionnaire. Ask for letters of recommendation from faculty; Interview with L North; Prepare for MCAT/DAT/GRE	Set up your interview Collect faculty and employer recommendations
April, June, July junior year	Take MCAT/DAT/GRE exam	Good Luck!
June-July	Submit application forms; Determine final list of schools to which you will apply	Write composite letter of recommendation
August-September, senior year	Submit secondary applications Request that composite letter be sent to your final list of schools	Submit HPAC recommendation; On-going advising and interview workshop
September-December, senior year	Set up mock interviews at Career Center. Travel to invited interviews Wait for acceptance letters	Support and advising on “Plan B”
May, senior year	Graduation from Hamilton	Celebrate!

Extracurricular and volunteer activities

In addition to taking the required courses, all medical/dental/vet schools want evidence that you are a caring, concerned person who is eager to serve others. This can be considered an unwritten requirement. The admission committees will look just as closely at your resume and personal qualities as they do your GPA.

Although we encourage you to pursue your personal interests in your extracurricular activities (e.g. sports, music, writing, campus leadership), we suggest that several of your activities involve community service. Service work can be defined as any activity that shows your interest in helping others. Service activities might include volunteering at your hometown hospital, working in Utica soup kitchens, tutoring high school students, ASB (alternative spring break), or serving as a campus EMT. You know your strengths and interests, so be creative and find your niche. There is no one “correct” activity that will guarantee admission to medical school. Choose activities that interest you and that you can commit to with enthusiasm.

Clinical experience in a hospital or appropriate health care setting is critical. It allows you to learn about your future profession and to develop appropriate skills. Seeking out these opportunities demonstrates your continued interest in the field of medicine. Hamilton students often spend one of their summer breaks at the Burke Rehabilitation Hospital in White Plains, NY or participate in a one-week HELP partnership at St. Elizabeth’s Family Residency Program in Utica. Students often shadow a physician at home during breaks or over the summer. Often opportunities to work in the health care environment become available through your other service activities. If you volunteer in the emergency room over the summer, you might rub elbows with doctors who will let you observe surgery. Shadowing a physician in your hometown may lead you to working with an oncologist demonstrating the link between specialties and primary care.

Keep in mind, too, that many of the top schools also like to see students who have some research experience. At Hamilton, about 90 students receive summer grants to work in the labs of faculty members. Medical schools also sponsor summer research programs for undergraduates, as do many universities. In some cases, participation in research can help you explore combined degree programs such as the MD/PhD, MD/MPH (Public Health), or MD/JD programs.

Standards of behavior

Health professions graduate schools require a high standard of personal and academic integrity, and failure to maintain such standards at Hamilton College will be reported to the professional schools. Any incidents that result in suspension, expulsion, probation or other sanction from the Honor Court or Judicial Board will be discussed in your committee letter of recommendation. When you request that a letter of recommendation be written, you will sign a form releasing any pertinent disciplinary or academic information in the Dean of Student’s Office. The HPAC will use this information in preparing your recommendation. Although we certainly do not expect that you will encounter any academic or disciplinary actions while here at Hamilton, it is necessary to warn you that failure to act honestly and responsibly might jeopardize your career plans.

Additional information sources

Email announcements will alert you to programs, speakers, and visits from graduate schools throughout the academic year. Even if you are certain of your goals, it's a good idea to attend these workshops to gain additional information. Leslie North, your faculty advisor, and the HPAC members are always ready to answer your questions and offer advice. There are also many reference materials available in print and on the web. For specific information on healthcare careers, begin with the Hamilton Health Professions site:
<http://www.hamilton.edu/academics/healthprofessions/default.html>

Other useful sites:

Health professions:	http://explorehealthcareers.org/en/Index.aspx
Allopathic medicine:	http://www.aamc.org/students/considering/start.htm
Osteopathic medicine:	http://publish.aacom.org/Pages/default.aspx
Dental medicine:	http://www.adea.org/Pages/default.aspx
Physician Assistant:	http://www.paeonline.org/
Accelerated nursing/CNP:	http://www.aacn.nche.edu/Education/pdf/APLIST.PDF
Physical therapy:	http://www.apta.org//AM/Template.cfm?Section=Home
Veterinary Medicine:	http://www.aavmc.org/
Public Health:	http://www.asph.org/

Closing thoughts

We hope to leave you, not with the idea that everything you do must be perfect to enter the medical profession, but with the idea that you are building an important portfolio of academic credentials, interesting activities, and service experiences that indicate your commitment to and suitability for your desired profession. We all stand ready to help and to advise, but in the end it is your responsibility to build a strong candidacy through sustained academic performance, with genuine evidence of the personal values and experiences that lead you to pursue a career in the health professions. While it is useful to have an overview of the process, much of what you do will come naturally as a part of your predilection to serve and your personal attraction to the health professions.

In our experience there are three essential elements to success in preparing for medical school:

- 1) good planning
- 2) strong time management skills
- 3) accurate self assessment

Many students arrive at college with their study, time management and planning skills well developed, but others may find improvement is necessary. Speak up and get assistance if you find you need it.

It may be that you are not as successful as you hope to be in your first semester at Hamilton College. If so, don't give up! Use the energy from the frustration you feel to build a rising record that ends strongly. Assess your time management and planning skills. Are you spending your time in conjunction with your goals? Share your ambitions with us and with each other and through sharing find motivation to excel academically and personally. Above all, do not be afraid to ask questions and use the resources of the college to assist you.

Health Professions check list

- Be open to new ideas, new majors, new activities, a new timeline.
- Plan a four year course of study that will allow you to meet *all* your personal goals.
- Make use of your professors' office hours and attend the review sessions offered.
- Find a place to study that suits your learning style.
- Continually examine how you are using your time.
- Experiment with group study. Many students learn well by teaching others, and through group work find out how fully they understand material.
- Some talented first year students have never before found it necessary to study. If your study skills need work, see Leslie North for suggestions.
- Check the College's online events calendar frequently. Attend a broad range of lectures, science symposia, medically related talks, etc. Watch your email for premed information.
- Explore extracurricular opportunities fully, and include a few service activities.
- Plan to spend a few days of each January break exploring your intended profession.
- In early January, begin planning a career-related summer activity.
- Consider spending one summer at a clinical job and one summer at a research job.
- Consider EMT training, either through the on-campus program or at home.
- Consider applying for Early Assurance admission, if appropriate.
- Be aware that although medical programs will look carefully at all your grades and will look for strong course choices across the curriculum, they are particularly interested in your grades in science and math.
- Graduate schools value applicants' participation in athletics, leadership and other extracurricular activities only if students are able to handle those involvements at the same time they are doing well in their classes.
- The DAT and GRE are offered throughout the year. The MCAT format changed radically in 2007 when it became an on-line test. The MCAT is now offered in January, April, May, June, July and August. See AAMC web site for additional information about the MCAT.
- During the past five years, 95% of Hamilton students/graduates who had cumulative GPA's of 3.5 or better were admitted to a medical/osteopathic/dental/vet school the first time they applied.

"A goal without a plan is just a wish." Antoine de Saint-Exupery