Preparing for a Medical, Dental, Veterinary, and Optometry Career

Helping to Launch Your Professional Career: Beginning the Process

A First-Year and Sophomore Student Guide

Medical, Dental, Veterinary, and Optometry

Health Professions Advisory Committee
c/o Dean Alex Trayford
Kollett Hall
26 East Main Street
Norton, Massachusetts 02766

Phone: 508.286.8215
E-mail: healthprofessions@wheatoncollege.edu
To Students Interested in the Medical, Dental, Veterinary, or Optometry Profession:

The beginning of your college career at Wheaton marks the beginning of your preparation to becoming a medical professional. Now is a good time to look back on the successes of Wheaton alumnae/i that, like you, made the same decision to follow the path toward a health profession. These past Wheaton students form an impressive list of acceptances to medical, dental, veterinary, and optometry schools; you can find a short sampling of institutions can be found on page 23. Still others are doing medical-related research at the graduate level, studying for Master’s and doctorate degree in medical-related fields, or are employed at many of the best institutions of medical-related research.

The success of our recent applicants is the result not only of their hard work, but also their participation in all-important health professions-related internships, research, and volunteer/community service projects all over the US and abroad. In many cases, students gained crucial direct experience with healthcare, finding such experiences with the invaluable assistance of Wheaton’s Career Services office. Many also pursued opportunities with alumnae/i and friends of Wheaton who work in the health professions. It cannot be stressed enough how such experiences and activities are absolutely necessary in order to be a strong candidate for graduate studies in any health profession.

Students interested in any health profession will gain much from participation in Wheaton’s Pre-health Society, a Student Government Association-sponsored student group. Through attendance at health professions presentations, students learn critical information on the state of various health professions, as well as hear from guest speakers who have successfully pursued these careers. It is also through the society that members of the Health Professions Advisory Committee (HPAC) meet with students to update them on requirements, application procedures, and timelines.

Ponder the successes of your peers. Follow their example. Gaining admittance to a health profession school is extremely competitive. Therefore, work closely with those of us who stand ready to help you pursue your goal of a career in the health professions. It is an exciting future, but one that calls for considerable planning, preparation, and dedication. Be an active member of your classes. Pursue activities that will help you learn more about the health professions and your motivation to help others. With much hard work and a lot of determination, and the help and advice available through HPAC, Career Services, and your professors, you too will be able to reach your goal of becoming a health professional.

Yours truly, from the members of the Health Professions Advisory Committee,

Ben Chalot  
Associate Director of Career Services

Robert Morris  
Professor of Biology

Meg Kirkpatrick  
Associate Professor of Psychology

J. Alex Trayford  
Senior Associate Dean of Studies

Lisa Lebduska  
Professor of English

Coordinator of Neuroscience Program

Director of College Writing
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OVERVIEW

Do you feel you have a “calling” to be a doctor, dentist, veterinarian, or optometrist? Good for you and congratulations for making the decision to join a respected and much-needed profession.

The goal of this publication by the Health Professions Advisory Committee (HPAC) is to provide you with some basic information and useful advice to help you meet your professional objectives. However, before going forward, you must ask yourself why you want to become a healthcare professional. Do you understand the economic future of healthcare, particularly with the coming policy changes? Are you OK with very long hours and little sleep? Do you mind being around sick and/or complaining patients, or the sight of blood? Have you considered the years of schooling and advanced training involved, not to mention the debt you will eventually incur along the way? Can you say you are both a “morning” and “night” person? And what about the constraints on social or family life?

These are not flippant questions and considerations, but serious ones. Therefore, before you move down the path toward a professional health career, please stop and ask yourself: WHY must I do this? Are you sure this is what you want to do? How do you know? What will you do if you are not (ever) admitted to a health professional school? We are going to ask you these hard questions. Be ready to answer them!

Have a look here for more information about whether a health profession is right for you: http://explorehealthcareers.org/en/getting_started/is_a_health_career_right

Still ready to move ahead? Great! There is a lot of work to do! Let’s get started.....

If you are thinking about becoming a healthcare professional, this guide provides you with an overview of what you need to do and how to get started.

In addition, each fall a meeting is scheduled for students interested in the health professions. This is a mandatory meeting! Notifications will go out to students well before the meeting.

Also........ Join the Pre-health Society. Talk with members of HPAC. Visit Career Services. Use the resources that are available to you.

Wheaton-based Links, Emails, and Phone Number:

Health Professions: http://wheatoncollege.edu/grad/health-professions/
Career Services: http://wheatoncollege.edu/career-services/
Pre-Health Society: http://wheatoncollege.edu/sga/2010/09/13/prehealth-society/
Health Professions: healthprofessions@wheatoncollege.edu
Career Services: careerservices@wheatoncollege.edu
Academic Advising: advising@wheatoncollege.edu

Academic Advising and Career Services – Kollett Hall: 508.286.8215
UNDERGRADUATE PREPARATION FOR HEALTH PROFESSIONS SCHOOLS

Although it is difficult to generalize what individual admissions committees will specifically look for when evaluating a candidate, all schools give special consideration to several key areas. It is important to think of these areas as different aspects of your entire profile.

For all the health professions discussed in this guide, you will find that there are six things that go into your undergraduate preparation. These areas to focus upon as you move ahead as a pre-health career student include, but are not limited to:

1. Academic preparation (both cumulative and pre-requisites grade point averages [GPA])
2. Standardized test scores
3. Community service, volunteer work, internships (especially health-related)
4. Research experiences
5. Extracurricular activities and leadership
6. Letters of recommendation

In addition to the above, health professions schools are looking for students with:

- Demonstrated evidence of commitment and passion for a health profession
- Demonstrated evidence of leadership, strong interpersonal, teamwork, and communication skills.

ACADEMIC PREPARATION

Choosing a Major:

As a health professions-bound student, you may graduate with any major or minor offered at Wheaton College. You should follow your own intellectual and academic interests. In fact, according to the Association of American Medical Colleges (AAMC): “Admission committee members know that medical students can develop the essential skills through a wide variety of academic disciplines...Choosing science [majors] based primarily on [the false assumption that doing so will enhance] one’s chances for admission to medical school is not in a student’s long-term best interest.” According to the AAMC, 52.7 % of biological science majors, 12.7 % of physical science majors, 11.9% of social science majors, 5 % of humanities majors, 2.3 % of specialized health sciences majors, and <1% of math and statistics majors matriculated into a medical school during the period of 2005-2012. Consequently, it is misguided to believe that certain majors are preferred over others. Your major is not a key determinant for admission to a health professions school. Study what you like most. You still have to do the pre-reqs!

Nevertheless, health professional schools expect students to have a strong foundation in the natural sciences (i.e., biology, chemistry, physics, and mathematics, abbreviated BCMP). Therefore, you must complete the proscribed courses, which represent what the majority of health professions schools require. You are also strongly advised to check with individual health professional schools regarding their specific or desired requirements, as these may vary.

Grades:

Invariably, students ask about grades – how high do they need to be, what should I “shoot for”? 
Of course, shoot for a 4.0! Keep in mind that your cumulative and pre-requisite undergraduate GPA, whether you like it or not, is a critical determinant for entrance into health professional schools. Schools want to make sure you can be academically successful in the courses required. How you did in your undergraduate pre-requisite courses is the best way to inform them of your academic abilities. As an example, the American Association of Medical Colleges (AAMC) recently found that there were approximately 44,000 applicants to allopathic (M.D.) medical schools. A bit over 40% were accepted to at least one school. Keep in mind that successful candidates for degree programs (matriculants) for medical school had a median overall grade point average of 3.7 (A-) overall and BCMP. But for many individual schools, that isn’t nearly enough! Many of the top schools expect GPAs of 3.8 or above. Nationally, for dental school, the cumulative and science GPAs were 3.5. Veterinary school averages are, cumulative and pre-requisites, between 3.5 and 3.6 GPAs. Optometry is between a 3.4 and 3.5.

That said, in case it isn’t obvious – do your very best in all your courses, with particular emphasis on the pre-requisites. Again, like it or not, it matters. Likewise though, students with high GPAs and high admissions test scores are less likely to be admitted to a health professions school without the passion, commitment, critical thinking, and communication and people skills that are so important to the profession. More on that later.

Pre-requisites:

The course requirements below are the recommended minimum pre-requisite courses. Keep in mind that some schools may have additional requirements and/or course recommendations they desire in applicants. For example, some health professions schools require taking a course in psychology, genetics, or even economics and public speaking. As such, it is your responsibility to check with particular schools prior to applying. To find out about requirements for all of the medical schools in the United States, check the Association of American Medical Colleges' Medical School Admission Requirements (MSAR) and the Osteopathic Medical College Information Book. Both are updated annually. The ADEA Official Guide to Dental Schools as well as the Veterinary Medical School Admissions Requirements guide (VMSAR) serves the same purpose for students interested in those fields.

Medical School Preparation Coursework (allopathic and osteopathic)

Required: 15 courses minimum

- 1 year of Introductory-level Biology with labs (Bio 111 and 112)
- 1 200-level Biology course with lab (Bio 211*, 219*, 221, or 254)
- 1 year of General Chemistry with labs (Chem 153 and 232)
- 1 year of Organic Chemistry with labs (Chem 253 and 254)
- 1 year of Introductory Physics with labs (Phys 170 or 171 and 180 or 181)
- 1 semester minimum of Mathematics/Statistics (Math 101, 104, or 141 or 151); maybe two.
- 1 year of English - Writing (Eng 101) and one Eng 200-level or above course

For the Medical College Admission Test (MCAT):
- 1 semester of Biochemistry (Bio 305)* Note – now required by more than 40 medical schools.
- 1 semester of Psychology – Introductory Psychology (Psy 101)
- 1 semester of Sociology – Introduction to Sociology (Soc 101*) or Self and Society (Soc 191)

*recommended
Dental School Preparation Coursework

Required: 12 courses minimum

• 1 year of introductory-level Biology with labs (Bio 111 and 112)
• 1 semester of Microbiology (Bio 221)
• 1 semester of Biochemistry (Bio 305)
• 1 year of General Chemistry with labs (Chem 153 and 232)
• 1 year of Organic Chemistry with labs (Chem 253 and 254)
• 1 year of Introductory Physics with labs (Phys 170 or 171 and 180 or 181)
• 1 year of English - Writing (Eng 101) and one English literature class (Eng 200-level or above)

Note: Some schools require course work in one or more of: Human Anatomy, Physiology, Calculus, and/or Intro Psychology. Many dental schools also require a specific number of job shadowing hours. Consult program details.

Veterinary School Preparation Coursework

Required: 13 courses minimum

• 1 year of introductory-level Biology with labs (Bio 111 and 112)
• 1 200-level Biology with lab minimum (Bio 211 and/or 221); See below note.
• 1 semester of Biochemistry (Bio 305)
• 1 year of General Chemistry with labs (Chem 153 and 232)
• 1 year of Organic Chemistry with labs (Chem 253 and 254)
• 1 year of Introductory Physics with labs (Phys 170 or 171 and 180 or 181)
• 1 semester minimum of Mathematics/Statistics (Math 101, 104, or 141/151); maybe two.
• 1 year of English - Writing (Eng 101) and one English literature class (Eng 200-level or above)

Note:
• 1 semester of Microbiology (Bio 221) is required by half of all US and Canadian vet schools
• 1 semester of Genetics (Bio 211) is required by 21 of the 28 US and Canadian vet schools

Optometry School Preparation Coursework: For Wheaton’s dual degree program with the New England College of Optometry (NECO). Contact Prof. Robert Morris during your first semester.

Required: 12 courses minimum

• 1 year of introductory-level Biology with labs (Bio 111 and 112)
• 1 semester of Microbiology (Bio 221)
• 1 semester of Biochemistry (Bio 305)
• 1 year of Mathematics (Math 101 and 141 or 151)
• 1 year of General Chemistry with labs (Chem 153 and 261)
• 1 year of Organic Chemistry with lab (Chem 253 and 254)
• 1 year of Introductory Physics with labs (Phys 170 or 171 and 180 or 181)
• 1 semester of Psychology (Psy 101)
• 1 year of English - Writing (Eng 101) and one English literature class (Eng 200-level or above)

Note: One semester each of Human Anatomy (Bio 106) and Introductory Physiology (Bio 244) are required by five of the other 21 optometry programs; all others “recommend” or “strongly recommend” it.
Checklists for all pre-medical, -dental, -vet, -optometry pre-requisites can be found later in this booklet.

STANDARDIZED TEST SCORES

Specific information on the required standardized admissions tests for the specific health professions (Medical College Admission Test – MCAT, Dental Admission Test – DAT, Graduate Record Exam – GRE [for veterinary], Optometry Admission Test – OAT) will be covered in detail in the appropriate Junior, Senior, and Alumnae/i Application Guide sections.

COMMUNITY SERVICE, VOLUNTEER WORK, INTERNSHIPS, JOBS – HEALTH-RELATED

Health professions schools want to be sure that the students they admit are dedicated to, and knowledgeable about, healthcare and all that it entails. You only have three summers during your undergraduate education. Use them wisely! Especially important are activities in which you demonstrate a long-term and sincere commitment to helping others. There are many opportunities for healthcare involvement, including volunteering at a hospital, shelter, clinic, public health-related community work, shadowing a health practitioner in your field of interest, and, for medical school, the all-important component of patient contact. Ben Chalot in Wheaton’s Career Services office is an outstanding resource to arrange internships both nationally and internationally.

You can also search for internships online at:
http://people.rit.edu/gtfsbi/Symp/premed.htm

Examples of the kinds of health-related internship and experiences Wheaton students have had during semesters or summers are varied and diverse: A short sampling of recent domestic programs include:

- Baker Institute for Animal Health, Cornell College of Vet. Med. (NY)
- Bellevue Hospital Center Project Healthcare (NY)
- Boston University Research Aphasia Lab (MA)
- Butler Hospital/Brown Alpert Med School (RI)
- Center for Integration of Medicine & Innovative Technology (MA)
- Center for Disease Control and Prevention (GA)
- Central Maine Orthopedics
- Children’s Cancer Connection (IA)
- Children’s Hospital of PA Center for Biomedical Informatics
- Cleveland Clinic Center for Reproductive Medicine (OH)
- Dana Farber Cancer Center (MA)
- Duke University, Genetics Biology Lab (NC)
- Harrington Family Health Ctr (ME)
- Hasbro Children Hospital (RI)
- Health Care for All (MA)
- Lahey Clinic, Pulmonary and Critical Care (MA)
- Malaria Elimination Initiative UCSF Global Health (CA)
- Maine Dartmouth Family Medicine Residency
- Marathon Physical Therapy and Sports Medicine (MA)
- Mass Audubon Society Coastal Waterbird Program (MA)
- Mass General Hospital, Neuropsychology Lab (MA)
- Mass General Hospital Sports Performance Center (MA)
- Mayo Clinic (MN)
- McLean Hospital, Developmental Biopsychiatry Research (MA)
- Miami Children's Hospital (FL)
- Michael E. DeBakey Surgery Program, Baylor College of Medicine (TX)
- Nat’l Institutes of Health (MD)
- New York Presbyterian Hospital
- Northeastern University Antimicrobial Discovery Center (MA)
- OWL Program at Boston Children’s Hospital (MA)
- Pittsburgh Children’s Hospital, Hematology/Oncology Lab (PA)
- Rhode Island Dept. of Health
- Rhode Island Hospital, Department of Psychiatry
- St. Francis Hospital Woodland Anesthesia Associates (CT)
- Seattle Children’s Hospital (WA)
- South Carolina Aquarium Sea Turtle Hospital
- Southwick’s Zoo (MA)
- Sturdy Memorial Hospital (MA)
- Tri County Health Network (CO)
- Tufts Floating Hospital for Children (MA)
- UMass Med Surgical Research
- Yale-New Haven Hospital (CT)
Likewise, Wheaton students have also had a variety of health-related international experiences. A sampling of these includes:

- Arco-Iris Clinic of Neuropathology and Rehab (Spain)
- Blue Med Africa (Tanzania)
- Child and Family Health Int’l (India)
- City Heart and Medical Ctr (India)
- C.S.M.M.U, Department of Community Medicine (India)
- Elective Africa (Tanzania)
- Experiential Learning Int’l (India)
- Gap Medics (Thailand)
- Himal Dental Hospital (Nepal)
- Iringa Regional Hospital (Tanzania)
- Leprosy and HIV/AIDS Healthcare Support (India)
- Lerang’wa Health Facility (Tanzania)
- Tengeru District Hospital (Tanzania)
- The Atlantis Project (Azores and Canary Islands)
- Volunteering Solutions Health Care (S. Africa)
- Xuzhon Medical College (China)
- World AIDS Conference (Switzerland)
- World Endeavors Physical Therapy (Costa Rica)
- Yunnan Hospital of Traditional Chinese Medicine (China)

**BE AWARE!** When it comes to healthcare-related experiences abroad, there are many US- and internationally-based organizations that charge students a hefty fee for international experiences to do work that is unethical for an undergraduate. Health professions schools are aware of these programs. They consider students who participate in such programs as exhibiting poor judgment. Contact Dean Trayford or Ben Chalot to make sure that you do not sign on to such programs. You should not be taking out kidneys and delivering babies as an undergraduate!

During the academic year, many students also spend a few hours a week volunteering at local hospitals/clinics, etc. The closest is Sturdy Memorial Hospital in Attleboro, MA, which offers pre-medical students a variety of opportunities (free transportation available). Pre-vet students have also spent time at many of the local animal hospitals. Contact the Service, Spirituality, and Social Responsibility (SSSR) office in the Cole Memorial Chapel Basement about other service opportunities that may be of interest to you. But remember – do not let anything get in the way of doing well in classes!

**Emergency Medical Technician (EMT) and Certified Nursing Assistant (CNA)**

Both EMT and CNA positions are great ways to gain patient contact. Become an Emergency Medical Technician and ride with an EMT squad. EMT training may be obtained at Wheaton. For more information about Wheaton’s EMT training program, check the Office of Health and Wellness’ website: [http://wheatoncollege.edu/health/wheaton-emergency-medical-service/get-certified/](http://wheatoncollege.edu/health/wheaton-emergency-medical-service/get-certified/). As stated on the website, Wheaton’s Emergency Medical Services (WEMS) is looking for dedicated students willing to work hard, become certified first responders, and serve our campus community. EMT training is a critical first step.

CNA training programs can either be classroom-based (many at cheaper community colleges) or online. These are short programs that train people to work in a healthcare setting. A simple internet search will provide you with a plethora of training opportunities. CNAs are supervised by professional nurses, and have daily contact with patients. They supply the nurse with up-to-date vital information about the patients’ conditions. Many Wheaton students have done the short training to be CNAs and spent summers gaining invaluable patient contact...and getting paid!
RESEARCH

Though no longer as “super-prioritized” for entrance into a health profession, independent research, summer research, collaborative research with faculty, and honors thesis research are important educational experiences that can help prepare you for graduate-level work in a medical field and further demonstrates your ability to understand science. You may obtain beneficial research experience at Wheaton, another university, research-based organization, or national laboratories offering undergraduate summer research. Many summer research experiences are competitive and difficult to obtain. Check with Ben Chalot in Career Services, the Health Professions website (http://wheatoncollege.edu/grad/health-professions/research-experience/), Pre-health Society emails, and the bulletin boards outside the Pre-health Society Lounge (former Science Center 203) often for information regarding research opportunities. Also, speak with your adviser/s and departmental faculty about summer research opportunities.

Additionally, you are strongly encouraged to look into the various summer programs offered through the National Science Foundation-Research Experiences for Undergraduates (NSF-REU) (www.nsf.gov/home/crssprgm/reu/start.htm) in the sciences and social sciences, as well as those through the National Institutes of Health (NIH) (https://www.training.nih.gov/programs/ugsp; https://www.training.nih.gov/). In addition to the NIH Undergraduate Summer Program, the NIH offers a wide array of programs including, but not limited to, the NIH-IRTA (Intramural Research Training Award) and NIH-GPP (Graduate Partnership Program). Students interested in various NIH programs (and there are many that are not necessarily listed) are strongly encouraged to contact the NIH Office of Intramural Training and Education. Like the NSF, the NIH has programs for students from all disciplines, not just the biomedical fields. In fact, the NIH wants students from all disciplines and areas of interest, including students in the humanities and social sciences. NIH internship programs vary in length and include summer programs, post-baccalaureate trainee programs, medical school student programs, and programs for graduate students. Dean Trayford, Ben Chalot, and your departments may also be able to direct you towards a listing of other nationally competitive undergraduate research-based scholarship opportunities, internships, and alum-sponsored summer research opportunities. We are available to help you through the application process.

EXTRACURRICULAR ACTIVITIES

You are strongly encouraged to participate in extracurricular activities while in college. Through participation in activities outside the classroom you will learn to manage a complex time schedule, learn about organizational hierarchy, learn to work with others, and develop critical communication, leadership and teamwork skills. Ideally, you should become deeply involved in two or three activities with positions of responsibility and leadership during your college career. Wheaton has a vast array of clubs and organizations to become a part of. Every fall, an Activities Fair is held in the Balfour-Hood Center, and you can check out all the current clubs and organizations through the Organization Directory. https://thelink.wheatoncollege.edu/organizations

However, while extracurricular activities are important, do not become overly involved to the extent that you compromise your academic work!
LETTERS OF RECOMMENDATION

Specific information on letters of recommendation will be covered in detail in the Junior, Senior, and Alumnae/i Application Guide. But, it should be self-evident that letters of recommendation are highly important to a successful application to a graduate health profession school. Some words of advice – get to know your professors! Stop by during their open office hours, talk to them about their research and your own health career interest! The more someone knows you, the better they can talk of you.

INTERNATIONAL STUDENTS AND AMERICAN HEALTH PROFESSIONS SCHOOLS

Non-US citizens who hold permanent residency in the US (i.e., green card holders) are commonly treated as equivalent to US citizens with respect for their application to health professions schools. However, non-US citizens and non-permanent residents have dramatically diminished applicant prospects. Some health professions schools do not allow applications from international students, while others do (those that do are mostly private schools); overall, the number of international students admitted yearly is extremely small to any medical-related professional program. Acceptances that are offered tend to be from private health professions schools.

Statistics from the Medical School Admission Requirements (MSAR), published yearly by the Association of American Medical Colleges, indicate that 71 US medical schools accepted applications from international students (12 of those only accepted applications from Canadian citizens). In a year of 18,000 matriculated medical students, only 240 were international students, or 1.3% of all applicants.

The 2014 ADEA Official Guide to Dental Schools reported that although 54 of the 75 US and Canadian dental schools accepted applications from international/non-permanent residents, of the total number of students entering dental school in the fall of 2013, only 4.2% were international students.

Of students entering one of the 20 US and Canadian optometry schools in 2013, only 8% were international.

An additional issue that arises for non-US citizens and non-permanent resident applicants involves financing their health profession education. Many US students finance their education, at least in part, through US government loans, which are not available to international students who are not permanent residents. Health professions schools often require international students to show proof of their ability to pay for their education in full and place adequate funds (often at least $200,000 to $300,000) in an account prior to enrollment. (This text is modified from Duke University’s Health Professions page.)

Therefore, we recommend that you research the admissions eligibility for health professions schools in your home or other countries with open enrollment.
OTHER IMPORTANT INFORMATION

Advanced Placement Credit

AP Credit (awarded for a score of 4 or 5) may sometimes be used to satisfy the mathematics and English writing requirement. However, if you have AP credit in the sciences, you should take an additional course for each semester of AP credit you have earned in that area. The goal is to help you move beyond the introductory course and to make sure that you do formal coursework in each science as an undergraduate. If you have AP credit, you should not repeat information that you already know or retake the introductory courses. Instead, use the AP credit as an opportunity to gain more depth in that area of study. Supplement your introductory knowledge with more advanced courses. So, if you accept AP credit in one of the sciences, you must take upper-level science courses with labs in the same science to satisfy the health school requirements. In short, AP credit may not be used to satisfy the science requirements because health professional schools want you to experience college-level science laboratory coursework. If you have AP credit for English, you may want to take an additional 200-level English course.

Summer School

There is nothing that says a student cannot take pre-requisite courses in summer school. However, remember that health professions schools rather you take all your science courses during the academic year. This is because they want you to demonstrate your ability to handle the laboratory coursework with a full course load. Some schools will also not accept pre-requisite courses from community colleges. As such, before taking a required science class during the summer, discuss the idea with Dean Trayford.

Pass/Fail Option

You should very carefully consider the reasons for taking a course pass/fail. In no instance should you take pre-requisite, particularly science courses, pass/fail. Moreover, as health professions schools like to see that you are successful in a variety of disciplines and courses, they generally discourage undergraduates from taking any courses on a pass/fail basis. However, if you think there is a good reason to do so, you should first discuss this option with Dean Trayford.

Study Abroad

Most health professional schools consider a study abroad experience a good thing, especially if you combine it with health-care-related experiences. If you are interested in studying abroad—DO IT! Start planning early and appropriately, and discuss the idea with Dean Trayford. Keep in mind that pre-requisite courses cannot be taken during study abroad. Schools will not accept pre-requisite courses taken at a foreign institution.

Non-prerequisite Courses and Connections to Consider

The pre-requisite requirements are just a small part of your undergraduate academic preparation for admission to a health professions career. Keep in mind that health professional schools desire applicants that have both breadth and depth in their academic and other activities that are designed to prepare
them for the rigors of professional school as well as the demands of the profession. Therefore, in addition to the proscribed courses, we recommend that students take courses across the disciplines. Wheaton offers a variety of courses outside of the health careers pre-requisites that can enhance a student’s understanding of health and medicine outside of the sciences. Also, through Wheaton’s innovated Connections curriculum, there are many Connections that pre-health careers students may consider taking to get a sense of the multi-dimensional ways that one can view the nature of the body, health, nutrition, drugs, and medicine.

Non-prerequisite elective courses: Note that some of these courses may have pre-requisites.

- Bio-ethics (Philosophy 241)
- Child Development (Psychology 203)
- Childhood Behavior Disorders (Psychology 324)
- Cultural Anthropology (Anthropology 102)
- Drugs and Behavior (Psychology 227)
- Edible Chemicals - for non-science majors (Chemistry 109)
- Ethics (Philosophy 111)
- Health Economics (Economics 262)
- Health and Medicine (Sociology 225)
- Health Psychology (Psychology 265)
- Lifespan Development (Psychology 233)
- Medical Anthropology (Anthropology 265)
- Medical Ethics (Philosophy 242)
- Mind, Brain, Behavior (Psychology 225)
- Nutrition (Biology 105)
- Perspectives on Death and Dying (Religion 162)

Connections to Consider:

- Biopharma
- Body and Mind
- Body, Form, and Motion
- Economics and Ethics of Healthcare Decision-Making
- Food
- Genes in Context
- Human Biology and Movement
- Living Architecture
- Madness in Medicine and Society
- Microbes and Health
- Psychoactive Sacramentals
- Structure and Function of Drugs

Academic Dishonesty/Irresponsible Behavior

Of course, all Wheaton students must maintain a high standard of ethics and personal deportment. You are bounded by the Wheaton Honor Code after all! You are now being informed that failure to maintain the standards of the Honor Code will be reported by the Health Professions Advisory Committee to the
health professional schools to which you apply. Students who do not have high standards of character
and integrity are automatically eliminated as applicants. If you have experienced disciplinary action in
college for infractions of the Wheaton’s codes of conduct, you are expected to disclose this information
in your application and to discuss its impact upon your personal growth. As part of the formal
application process, the Dean of Students Office will be asked whether you have been disciplined for
academic and/or social misbehavior. If the Dean considers the infraction to be reportable, HPAC is
obliged to report it in our Committee Letter of Evaluation.

APPLICATION TIMING

It used to be common for students to apply to a health profession school the summer prior to their
senior year of college. This allowed students to matriculate directly to the health professions school
immediately following their graduation from Wheaton. Today, according to the AAMC, this no longer
seems to be the trend, with the average age of matriculants currently in their mid-twenties (around 25
for medical school).

There are many different ways to complete the required health profession pre-requisite courses. As you
think about which model is best for you, you need to keep a variety of factors in mind.

MODEL I — Applying during the summer between the junior and senior year

Students complete all pre-requisite coursework by the end of the junior year and take the relevant
admissions test in the spring or early summer of their junior year. Under this model, the successful
applicant will matriculate to a health professions school the autumn following graduation from
Wheaton.

MODEL II — Applying directly after graduation or later

Students complete all pre-requisite coursework prior to graduation and take their relevant admissions
test during or after their senior year. This model has the benefit of more flexibility by being able to
spread the pre-requisite coursework out over four years. Alternatively, students can complete or
improve upon their required pre-requisite coursework after graduating from Wheaton by enrolling in a
post-baccalaureate program and taking the admissions test after their senior year. Students can also
use the time after graduation to gain more experiences in healthcare-related service.

Under this model, the successful applicant will matriculate to a health professions school a year (or
more) after graduating from Wheaton.

Which model is best for you?

For some, taking all the required pre-requisite courses in a relatively concentrated timeframe is
appropriate. For others, spreading them out over a longer period of time works best, even if it means
taking some of those courses over the summer or after graduation.

In the long run, it is important to select the pathway and timeline that best fits your interests and
abilities.
It must be emphasized that there is no single “best way” to prepare for a career in the health professions. Follow a model that works best for you. It is not how quickly you prepare yourself, but how well prepared you are that will make you a strong candidate.

**DISADVANTAGED AND UNDERREPRESENTED MINORITY STUDENTS**

There is a severe lack of health professionals from disadvantaged and underrepresented minority groups. All the health professions strongly encourage individuals who are disadvantaged or from a minority background, who are traditionally underrepresented in the health professions, to apply.

There are some excellent resources for students to utilize, including general information, summer opportunities, and enrichment programs that are offered through professional schools.

**Pre-medical**
- [http://www.smdep.org/](http://www.smdep.org/)
- [https://www.aamc.org/students/minorities](https://www.aamc.org/students/minorities)
- [https://www.aamc.org/students/aspiring/](https://www.aamc.org/students/aspiring/)
- [http://www.cse.emory.edu/sciencenet/undergrad/Summer_Research/Browse.cfm](http://www.cse.emory.edu/sciencenet/undergrad/Summer_Research/Browse.cfm) - use dropdown menu in the green box on the right.
- [https://services.aamc.org/summerprograms/](https://services.aamc.org/summerprograms/)

**Pre-dental**
- [http://www.smdep.org/](http://www.smdep.org/)
- [http://www.ada.org/sections/educationAndCareers/pdfs/minority_dentist_brochure.pdf](http://www.ada.org/sections/educationAndCareers/pdfs/minority_dentist_brochure.pdf)
MEDICAL SCHOOL ADMISSION PRE-REQUISITES:
Allopathic (MD) and Osteopathic (DO)

COURSES REQUIRED BY THE MAJORITY OF MEDICAL SCHOOLS.
Consult Dean Trayford for the right sequence of courses for you.

THREE biology courses:  Note – some medical school require specific biology courses beyond these.
Bio 111:  Evolution and Ecology     (biochemistry and bioinformatics majors may skip this course)
Bio 112:  Cells and Genes

*ONE from:  Note – Bio 211 or 219 are recommended.
Bio 211: Genetics
Bio 219: Cell Biology
Bio 221: Microbiology
Bio 254: Developmental Biology

FOUR chemistry courses:
Chem 153: Chemical Principles
Chem 253: Organic Chemistry I
Chem 254: Organic Chemistry II
Chem 232: Aqueous Equilibria

TWO physics courses:
Phys 170: Introductory Physics I
Phys 171: Introductory Physics II

ONE mathematics course:  Note – some medical schools require two mathematics courses.
Math 101: Calculus I  Note: only 12 MD programs currently require calculus
(Required for biochemistry, chemistry, economics, mathematics, physics majors)
OR
Math 141: Statistics
(Required for bioinformatics, business/management, economics, neuroscience, psychology majors)

TWO English courses:
Eng 101: Writing
One English literature class: 200-level or above

COURSE MATERIAL REQUIRED for the Medical College Admission Test (MCAT)
Bio 305:  Biochemistry  Note: more than 40 MD and 7 DO schools require biochemistry.

NOTE: Course pre-requisites for Bio 305: Biochemistry that must be completed before taking the course: Chem 253, Chem 254, and *one of the 200-level biology course above.

If biochemistry is not required for a major or a medical school to which you plan on applying, students can meet with Professor Lanni in the biology department about auditing the biochemistry lecture in order to get the material. No lab is required for students taking the course solely in preparation for the MCAT.

Psy 101: Introductory Psychology
Soc 101: Introduction to Sociology (highly recommended) or Soc 191: Self and Society

* * *
FIRST-YEAR AND SOPHOMORE STUDENT TIMELINE: Medical School
Adapted from the American Association of Medical Colleges

Use this general guide to help prepare for the medical school application and admission process. Be sure to talk to your pre-health advisor to create a schedule that works best for you.

**College Year 1:**
- Confirm course selection with Dean Trayford
- Make an appointment with Dean Trayford to introduce yourself, discuss the best way to sequence your classes and get acquainted with campus resources
- Attend Pre-health Society meetings on campus and make sure you are on email lists to get relevant updates and information
- Seek opportunities to volunteer, shadow a doctor, and, if interested, identify research opportunities on campus
- Develop relationships with faculty, advisors, and mentors on campus
- Explore the AAMC’s Considering a Medical Career resources ([www.aamc.org/students/considering](http://www.aamc.org/students/considering))
- Work with Ben Chalot in Career Services to identify summer volunteer, paid, research and leadership opportunities related to medicine
- If you are eligible, apply to summer enrichment programs ([http://services.aamc.org/summerprograms](http://services.aamc.org/summerprograms)) or research programs ([www.aamc.org/members/great/61052/great_summerlinks.html](http://www.aamc.org/members/great/61052/great_summerlinks.html))
- Complete first year premedical coursework and other school-specific degree requirements

**Summer Following College Year 1:**
- Work or volunteer in the medical field; consider internships, research and leadership opportunities on campus or in your local community
- If you’re eligible, participate in summer enrichment or research programs

**College Year 2:**
- Check-in with Dean Trayford at the beginning of the new academic year to review progress
- Attend all pre-health meetings, and make sure you’re still on email lists to receive information and updates
- Pursue meaningful clinical experience, medically-related activities, volunteer work research and/or leadership roles
- Continue to develop relationships with faculty, advisors, and mentors on your campus
- Apply for summer research, internship, or enrichment programs such as the Summer Medical and Dental Education Program ([www.smdep.org](http://www.smdep.org))
- Consider returning to your previous summer position, or apply for a new summer volunteer, paid, or research position related to medicine
- Complete second year premedical coursework and other school-specific degree requirements

**Summer Following College Year 2:**
- Work or volunteer in the medical field; consider internships, research opportunities and leadership positions on campus or in your local community
- Participate in summer enrichment, research, or internship programs
- Investigate:
  - The medical school application process ([www.aamc.org/students/applying/](http://www.aamc.org/students/applying/))
  - Medical College Admission Test (MCAT®) ([www.aamc.org/mcat](http://www.aamc.org/mcat))
  - Fee Assistance Program (FAP) ([www.aamc.org/fap](http://www.aamc.org/fap))
DENTAL SCHOOL ADMISSION PRE-REQUISITES:

COURSES REQUIRED BY THE MAJORITY OF DENTAL SCHOOLS.
Consult Dean Trayford for the right sequence of courses for you.

All of the courses below are required before applying to dental schools. Keep in mind that these courses represent the basic requirements for most dental schools. Additional courses are common. Check with specific dental school programs for extra requirements.

All dental schools recommend or require a specific number of hours job shadowing a dentist. Consult with specific schools.

There are 66 dental school in the US and 10 in Canada.

FOUR biology courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio 111: Evolution and Ecology</td>
<td>(biochemistry and bioinformatics majors may skip this course)</td>
</tr>
<tr>
<td>Bio 112: Cells and Genes</td>
<td></td>
</tr>
<tr>
<td>Bio 221: Microbiology</td>
<td></td>
</tr>
<tr>
<td>Bio 305: Biochemistry*</td>
<td>*Course pre-requisites for Bio 305: Biochemistry that must be completed before taking the course – Chem 253, Chem 254, and BIO 221.</td>
</tr>
</tbody>
</table>

Note: Consult with specific dental schools for additional courses required. For example:
- Eleven dental schools require Bio 106: Human Anatomy
- Nine require Bio 244: Introductory Physiology
- Seven require one or two semesters of mathematics. For those which do, Math 101: Calculus I is the required course.
- Four require Psy 101: Introductory Psychology

FOUR chemistry courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 153: Chemical Principles</td>
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<tr>
<td>Chem 253: Organic Chemistry I</td>
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<tr>
<td>Chem 254: Organic Chemistry II</td>
<td></td>
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<tr>
<td>Chem 232: Aqueous Equilibria</td>
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</table>

TWO physics courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Note</th>
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<tbody>
<tr>
<td>Phys 170: Introductory Physics I</td>
<td></td>
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<tr>
<td>Phys 171: Introductory Physics II</td>
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</tbody>
</table>

TWO English courses:

<table>
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<tr>
<th>Course</th>
<th>Note</th>
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<tbody>
<tr>
<td>Eng 101: Writing</td>
<td></td>
</tr>
<tr>
<td>One English class: 200-level or above</td>
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</tbody>
</table>
FIRST-YEAR AND SOPHOMORE STUDENT TIMELINE: Dental School
Adapted from the American Dental Education Association

Below are a few guidelines to help you plan your coursework...and offers a general timeline for preparation.

College Year 1:
- Confirm course selection with Dean Trayford
- Make an appointment with Dean Trayford to introduce yourself, discuss the best way to sequence your classes and get acquainted with campus resources
- Attend Pre-health Society meetings on campus and make sure you are on email lists to get relevant updates and information
- Seek opportunities to volunteer in a community health clinic, shadow a dentist, and, if interested, identify research opportunities on campus
- Work with Ben Chalot in Career Services to identify summer volunteer, paid, research and leadership opportunities related to dentistry
- Develop relationships with faculty, advisors, and mentors on campus
- Explore the ADEA’s “What is Dentistry?” site (http://info.adea.org/DEP/Pathways/Future_Students/What_is_Dentistry/) and “Career Options” site (http://info.adea.org/DEP/Pathways/Future_Students/Career_Options/Career_Options/)
- Research pre-health enrichment programs at ExploreHealthCareers.org and look into Summer Medical and Dental Education Program for first-years and sophomores (http://www.smdep.org/). Enrichment programs can help you decide if a career in dentistry is a fit for you and become better prepared for the rigors of advanced science courses.
- Complete first year pre-dental coursework and other school-specific degree requirements

Summer Following College Year 1:
- Work or volunteer in the dental field; consider internships, research and leadership opportunities on campus or in your local community
- If you’re eligible, participate in summer enrichment or research programs

College Year 2:
- Check-in with Dean Trayford at the beginning of the new academic year to review progress
- Attend all pre-health meetings, and make sure you’re still on email lists
- Pursue meaningful clinical experience, dental-related activities, volunteer work research and/or leadership roles
- Continue to develop relationships with faculty, advisors, and mentors on your campus
- Apply for summer research, internship, or enrichment programs.
- Consider returning to your previous summer position, or apply for a new summer volunteer, paid or research position related to dentistry
- Explore community service opportunities through Wheaton; dental schools seek applicants who have demonstrated leadership and commitment to helping others.
- Complete second year pre-dental coursework and other school-specific degree requirements

Summer Following College Year 2:
- Work or volunteer in the dental field; consider internships, research opportunities and leadership positions in your local community
- Participate in summer enrichment, research, or internship programs
- Have a look at the application process (http://info.adea.org/DEP/Pathways/Future_Students/Applying_to_Dental_School/) and the Dental Admission Test (DAT®) (http://www.ada.org/dat.aspx)
# VETERINARY SCHOOL ADMISSION PRE-REQUISITES

## COURSES REQUIRED BY THE MAJORITY OF VETERINARY SCHOOLS.

Consult Dean Trayford for the right sequence of courses for you.

All of the courses below are required before applying to veterinary schools. Keep in mind that these courses represent the basic requirements for most veterinary schools. Additional courses are common. Check with specific veterinary school programs for extra requirements. There are 28 veterinary schools in the US and five in Canada.

### FOUR biology courses minimum:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio 111: Evolution and Ecology</td>
<td>(biochemistry and bioinformatics majors may skip this course)</td>
</tr>
<tr>
<td>Bio 112: Cells and Genes</td>
<td></td>
</tr>
<tr>
<td>Bio 305: Biochemistry*</td>
<td></td>
</tr>
</tbody>
</table>

*Course pre-requisites for Bio 305: Biochemistry that must be completed before taking the course: Chem 253, Chem 254, and BIO 211 or BIO 221 (see below).

### ONE course minimum from:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Bio 211: Genetics</td>
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<tr>
<td>Bio 221: Microbiology</td>
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</tbody>
</table>

**Note:**
- Bio 211: Genetics – required or recommended by 21 veterinary schools
- Bio 221: Microbiology – required or recommended by 18 veterinary schools

### FOUR chemistry courses:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Chem 153: Chemical Principles</td>
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<tr>
<td>Chem 253: Organic Chemistry I</td>
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<tr>
<td>Chem 254: Organic Chemistry II</td>
</tr>
<tr>
<td>Chem 232: Aqueous Equilibria</td>
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</tbody>
</table>

### TWO physics courses:

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Phys 170: Introductory Physics I</td>
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<tr>
<td>Phys 171: Introductory Physics II</td>
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</tbody>
</table>

### ONE mathematics course:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Math 101: Calculus I</td>
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</table>

(required for biochemistry, chemistry, economics, mathematics, physics majors)

**Note:** some veterinary schools also require a semester of statistics

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>Math 141: Statistics</td>
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</tbody>
</table>

(required for bioinformatics, business/management, economics, neuroscience, psychology majors)

### TWO English courses:

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng 101: Writing</td>
</tr>
<tr>
<td>One English class: 200-level or above</td>
</tr>
</tbody>
</table>
FIRST-YEAR AND SOPHOMORE STUDENT TIMELINE: Veterinary School
Parts adapted from ProspectiveDoctor.com

College Year 1:
- Confirm course selection with Dean Trayford
- Make an appointment with Dean Trayford to introduce yourself, discuss the best way to sequence your classes and get acquainted with campus resources
- Attend Pre-health Society meetings on campus and make sure you are on email lists to get relevant updates and information
- Seek opportunities to volunteer in a professional veterinary setting, shadow a vet, and, if interested, identify research opportunities on campus
- Work with Ben Chalot in Career Services to identify summer volunteer, paid, research and leadership opportunities related to veterinary medicine
- Develop relationships with faculty, advisors, and mentors on campus
- Explore the AAVMC’s “Exploring Veterinary Career Options” site (http://www.aavmc.org/Additional-Pages/Veterinary-Career-Options.aspx) and “Career in Veterinary Medicine” site (http://aavmc.org/Students-Applicants-and-Advisors/Careers-in-Veterinary-Medicine.aspx)
- Make sure to research into veterinary schools to learn about their specific requirements
- Complete first year pre-vet coursework and other school-specific degree requirements

Summer Following College Year 1:
- Work or volunteer in the veterinary field; consider internships, research and leadership opportunities in your local community

College Year 2:
- Check-in with Dean Trayford at the beginning of the new academic year to review progress
- Attend all pre-health meetings, and make sure you’re still on email lists
- Pursue meaningful clinical experience, veterinary-related activities, volunteer work research and/or leadership roles
- Continue to develop relationships with faculty, advisors, and mentors on your campus
- Apply for summer research, internship, or enrichment programs.
- Consider returning to your previous summer position, or apply for a new summer volunteer, paid or research position related to medicine
- Make sure you are keeping up and doing well in your pre-veterinary and school-specific courses. Remember your GPA is one of the most important, if not most important, factor in your veterinary school admissions
- Become familiar with the required standardized test for veterinary school admission. Most veterinary schools require the Graduate Record Examinations (www.gre.org). Some schools also accept the Medical College Admission Test (MCAT). Find out which schools require what and which test you want to prepare for. Most likely, it will be GRE.
- Consider when you want to enroll in veterinary school. If you want to enroll soon after you graduate college, you need to start applying after your third year. If you want to take a year off (called a gap year), you can apply after your senior year.
- Complete second year pre-vet coursework and other school-specific degree requirements

Summer Following College Year 2:
- By now you should have had some exposure to veterinary medicine. Continue working, interning, or volunteering at your current position. Consider obtaining experience in both research laboratories and veterinary clinics.
OPTOMETRY SCHOOL ADMISSION PRE-REQUISITES:

See Professor Robert Morris in the biology department about the Dual Degree with the New England College of Optometry (NECO) in the first semester. For the dual degree, all of the below courses and Wheaton requirements must be completed in three years.

COURSES REQUIRED BY THE MAJORITY OF OPTOMETRY SCHOOLS, INCLUDING NECO.
Consult Dean Trayford for the right sequence of courses for you.

All of the courses below are required before applying to optometry schools. Keep in mind that these courses represent the general requirements for the majority optometry schools. Depending on the school, there may be additional requirements, such as anatomy and physiology. Check with specific optometry schools.

There are 21 colleges of optometry in the US.

FOUR biology courses:

Bio 111: Evolution and Ecology  (biochemistry and bioinformatics majors may skip this course)  
Bio 112: Cells and Genes  
Bio 221: Microbiology  
Bio 305: Biochemistry*  

*Course pre-requisites for Bio 305: Biochemistry that must be completed before taking the course: Chem 253, Chem 254, and Bio 221.

FOUR chemistry courses:

Chem 153: Chemical Principles  
Chem 253: Organic Chemistry I  
Chem 253: Organic Chemistry II  
Chem 261: Inorganic Chemistry  

TWO physics courses:

Phys 170: Introductory Physics I  
Phys 171: Introductory Physics II  

TWO mathematics course:

Math 101: Calculus I  
Math 141: Statistics  

ONE psychology course:

Psy 101: Introductory Psychology  

TWO English courses:

Eng 101: Writing  
One English literature class: 200-level or above
FIRST-YEAR AND SOPHOMORE STUDENT TIMELINE: Optometry School
Parts adapted from ProspectiveDoctor.com

**College Year 1:**
- Confirm course selection with Dean Trayford
- Make an appointment with Dean Trayford to introduce yourself, discuss the best way to sequence your classes and get acquainted with campus resources
- Attend Pre-health Society meetings on campus and make sure you are on email lists to get relevant updates and information
- Seek opportunities to volunteer in a professional optometry setting, shadow a optometrist, and, if interested, identify research opportunities on your campus
- Work with Ben Chalot in Career Services to identify summer volunteer, paid, research and leadership opportunities related to optometry
- Develop relationships with faculty, advisors, and mentors on your campus
- Make sure to research optometry schools to learn about their specific requirements
- Complete first year pre-optometry coursework and other school-specific degree requirements

**Summer Following College Year 1:**
- Work or volunteer in the optometry field; consider internships, research and leadership opportunities in your local community

**College Year 2:**
- Check-in with Dean Trayford at the beginning of the new academic year to review progress
- Attend all pre-health meetings, and make sure you’re still on email lists
- Pursue meaningful clinical experience, optometry-related activities, volunteer work research and/or leadership roles
- Continue to develop relationships with faculty, advisors, and mentors on your campus
- Apply for summer research, internship, or enrichment programs.
- Consider returning to your previous summer position, or apply for a new summer volunteer, paid or research position related to optometry
- Make sure you are keeping up and doing well in your pre-optometry and school-specific courses. Remember your GPA is extremely important factor in optometry school admissions
- Become familiar with the required standardized test for optometry school admission. Optometry schools require the Optometry Admission Test (OAT) ([http://www.opted.org/about-optometric-education/professional-o-d-programs/frequently-asked-questions-about-the-optometry-admission-test-oat/](http://www.opted.org/about-optometric-education/professional-o-d-programs/frequently-asked-questions-about-the-optometry-admission-test-oat/)).
- Consider when you want to enroll in optometry school. If you want to enroll soon after you graduate college, you need to start applying after your third year. If you want to take a year off (called a gap year), you can apply after your senior year.
- Complete second year pre-optometry coursework and other school-specific degree requirements

**Summer Following College Year 2:**
- By now you should have had some exposure to optometry. Continue working, interning, or volunteering at your current position. Consider obtaining experience in both research laboratories and optometry settings.
WHAT MEDICAL, DENTAL, VETERINARY, AND OPTOMETRY SCHOOLS
HAVE WHEATON ALUMNAE/I BEEN ACCEPTED?

The below list of professional institutions represents a sampling from the past few years of where graduates of Wheaton have been accepted in order to continue their education to become a medical professional in the fields of allopathic and osteopathic medicine, dentistry, veterinary medicine, and optometry. The list is ordered alphabetically.

<table>
<thead>
<tr>
<th>Medical/Dental/Veterinary/Optometry Schools</th>
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<tbody>
<tr>
<td>Alabama College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Albany Medical College</td>
</tr>
<tr>
<td>Atlantic College of Veterinary Medicine</td>
</tr>
<tr>
<td>Boston University School of Medicine</td>
</tr>
<tr>
<td>Boston University School of Dental Medicine</td>
</tr>
<tr>
<td>Brown University – Alpert Medical School</td>
</tr>
<tr>
<td>Chicago College of Osteopathic Medicine</td>
</tr>
<tr>
<td>Chicago Medical School – Rosalind Franklin University</td>
</tr>
<tr>
<td>Columbia University College of Dental Medicine</td>
</tr>
<tr>
<td>Commonwealth Medical College</td>
</tr>
<tr>
<td>Cooper Medical School of Rowan University</td>
</tr>
<tr>
<td>Cornell University College of Veterinary Medicine</td>
</tr>
<tr>
<td>Cornell University Weill Medical College</td>
</tr>
<tr>
<td>Creighton University School of Medicine</td>
</tr>
<tr>
<td>Dartmouth Medical School</td>
</tr>
<tr>
<td>Drexel University College of Medicine</td>
</tr>
<tr>
<td>East Carolina University Brody School of Medicine</td>
</tr>
<tr>
<td>Eastern Virginia Medical School</td>
</tr>
<tr>
<td>Florida International University College of Medicine</td>
</tr>
<tr>
<td>George Washington University School of Medicine</td>
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<tr>
<td>Georgetown University School of Medicine</td>
</tr>
<tr>
<td>Harvard Medical School</td>
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<tr>
<td>Jefferson Medical College</td>
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<tr>
<td>Johns Hopkins University School of Medicine</td>
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<tr>
<td>Mayo Clinic College of Medicine/Mayo Medical School</td>
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<tr>
<td>Medical College of Georgia School of Medicine</td>
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<tr>
<td>Medical College of Virginia</td>
</tr>
<tr>
<td>New England College of Optometry (Wheaton dual degree program)</td>
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<tr>
<td>New England College of Osteopathic Medicine</td>
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<tr>
<td>New York Medical College</td>
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<tr>
<td>New York University School of Medicine</td>
</tr>
<tr>
<td>New York University College of Dentistry</td>
</tr>
<tr>
<td>Ohio State University College of Veterinary Medicine</td>
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<tr>
<td>Oakland University Beaumont School of Medicine</td>
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<tr>
<td>Pennsylvania State University College of Medicine</td>
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<tr>
<td>Philadelphia College of Osteopathic Medicine</td>
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<tr>
<td>Quinnipiac University School of Medicine</td>
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<tr>
<td>Rocky Vista University College of Osteopathic Medicine</td>
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<tr>
<td>Rutgers University Robert Wood Johnson Medical School</td>
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<tr>
<td>Saint Louis University School of Medicine</td>
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<tr>
<td>Salus University Pennsylvania College of Optometry</td>
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<tr>
<td>State University of NY Downstate College of Medicine</td>
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<tr>
<td>Stony Brook University School of Medicine</td>
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<td>Temple University School of Medicine</td>
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<td>Tufts University School of Dental Medicine</td>
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<td>Tufts University School of Medicine</td>
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<td>Tufts University School of Veterinary Medicine</td>
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<td>Uniformed Services University School of Medicine</td>
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<td>University of Arkansas College of Medicine</td>
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<td>University at Buffalo School of Medicine</td>
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<td>University of Cincinnati College of Medicine</td>
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<td>University of Connecticut School of Medicine</td>
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<td>University of Hawai‘i John A. Burns School of Medicine</td>
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<td>University of Maryland School of Medicine</td>
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<tr>
<td>University of Massachusetts Medical School</td>
</tr>
<tr>
<td>University of Minnesota College of Veterinary Medicine</td>
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<tr>
<td>University of Medicine and Dentistry of New Jersey</td>
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<tr>
<td>University of Pennsylvania School of Veterinary Medicine</td>
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READ. READ. THEN READ SOME MORE...

Students should read widely on the subject of health in order to be better educated and informed about the state of healthcare in the US and current research being done in the field.

First, sign up for an Explore Health Careers free monthly student e-newsletter subscription with links to new articles: http://explorehealthcareers.org/en/Signup

Journals and Periodicals:

*Scientific American*
*Nature*
*Science*
*New England Journal of Medicine*
*Journal of the American Medical Association*
*Journal of the American Dental Association*
*Journal of the American Veterinary Medical Association*
*Optometry – Journal of the American Optometric Association*

Tuesday’s *New York Times* Health/Science Articles

We also encourage you to read widely from a list of suggested readings:

**MEDICAL SCHOOL**

*My Own Country*, Abraham Verghese.  
A true-life account of a doctor treating AIDS patients in a small Tennessee town.

*Learning to Play God*, Robert Marion, M.D.  
Author’s own experiences of medical school, internship, residency.

*The Intern Blues*, Robert Marion, M.D.  
Stories of three interns who kept diaries of their internship experiences.

*Five Patients*, Michael Crichton.  
Five true cases of patients of a major city hospital, Massachusetts General.

*Emergency! True Stories from the Nation’s ER’s*, Mark Brown.  
Stories from ER doctors and nurses from around the country.

*First Do No Harm*, Lisa Belkin.  
Account of decisions made in the cases of several patients in the mid to late 1980’s by the hospital ethics committee at Hermann Hospital in Houston.

*Letters to a Young Doctor*, Richard Selzer.

*A Not Entirely Benign Procedure: Four Years as a Medical Student*, Perri Klass.  
Four years at Harvard Medical School from a female perspective.
The Youngest Science: Notes of a Medicine Watcher. Lewis Thomas.  
An account of his life in medicine and an inquiry into what medicine is all about.

Becoming a Doctor: A Journey of Initiation in Medical School. Melvin Konner, M.D.  
Author entered medical school at 33 years of age and chronicles his account of the third year of medical school.

Famous author’s story of his battle with cancer and the overuse of chemotherapeutic drugs.

Days of Grace. Arthur Ashe.  
Tennis great’s autobiography which includes his battle with AIDS.

Not All of Us Are Saints. David Hilfiker, M.D.  
Written by a physician who gave up his rural practice in Minnesota to practice in a poverty ravaged community in Washington, DC.

Collection of work by physicians and non-physicians on what it is like to be sick, to be cured, to lose and to triumph.


Doctor Stories. William Carlos Williams

The Lives to Come. Philip Kitcher.  
Analysis of ethical and social concerns that surround human molecular and genetic engineering.

Insider’s Guide to Medical Schools: Current Students Tell You What Their Medical School is Really Like. Ivan Oransky (Ed.)  
Narrative reports from students at 138 accredited medical schools.

White Coat: Becoming a Doctor at Harvard Medical School. Ellen Lerner Rothman.  
A vivid account of her four years at Harvard describing the grueling hours and emotional hurdles she overcame.

Just Here Trying to Save a Few Lives: Tales of Life and Death in the ER. Pamela Grim, M.D. ER Physician’s account of her “life and death” world.

Finally...I’m a Doctor. Neil Shulman.  
A hilarious novel based on the author’s experiences as a young doctor.

A history of American women physicians and their struggle for acceptance in the medical world.

A multi-disciplinary examination of health care systems in a variety of countries.

Caring for Patients from Different Cultures: Case Studies from American Hospitals. Geri-Ann Galanti.  
172 case studies of actual conflicts of culture that occurred in American hospitals.

In the Country of Hearts: Journeys in the Art of Medicine. John Stone.  
A cardiologist writes about the interface between the anatomical and the metaphysical hearts in each person. Encounters from 25 years of experience treating patients with heart ailments.
The Spirit Catches You and You Fall Down. Anne Fadiman.
Story of Lia Lee, a young Hmong immigrant who developed symptoms of epilepsy and was left brain-dead after a tragic cycle of misunderstanding, overmedication and culture clashes between the medical community and her family.

House of God. Samuel Sham.
A hilarious novel about six interns who saw themselves as modern “saviors to be” making the adjustment from “top of their class in medical school to bottom of the hospital staff as interns”.

Autobiography of a psychologist and professor of psychiatry at Johns Hopkins. She discusses her struggle with bipolar mood disorder and her treatment.

Mountains Beyond Mountains. Tracy Kidder.
Story of Dr. Paul Farmer, MD/PhD and his work in Haiti treating infectious diseases.

What Patients Taught Me: A Medical Students Journey. Audrey Young, MD.
Memoir of the emotional complexity of treating patients when their lives are hanging in the balance.

On Call: A Doctor’s Days and Nights in Residency. Emily R. Transue.
Focuses on stories of patient’s lives, illnesses and the relationships developed between doctor and patients.

The Closest of Strangers: A Doctor and His Patients Experience the Human Side of Healing. James Judge.


The struggle to eradicate polio in the mid-20th Century and Dr. Salk’s work in developing a vaccine.

Walk on Water: Inside an Elite Pediatric Surgical Unit. Michael Ruhlman.
Focuses on Dr. Roger Mee of Cleveland Clinic, in whose hands baby’s lives rest almost daily.

A history of how the entire American health care system has evolved over the last two centuries.

The Pact: Three Young Men Make a Promise and Fulfill a Dream. Sampson Davis.
The story of three young boys who made a pact while growing up in crime ridden Newark, New Jersey that they would make something of themselves. Two became doctors and one a dentist.

DENTAL SCHOOL


Where There Is No Dentist. Murray Dickson.

Dental School: Preparation, Survival, and Success. Dr. Dean Brandon.

Dental Ethics at Chairsde: Professional Principles and Practical Applications. David Ozar and David Sokol. Written for professional ethics courses in dental schools, this book is designed to show dental students and practitioners how to approach patient relationships.
Beyond the Curve of Spee, Surviving Four Years of Dental School. Dr Ken Spaldane.

Confessions of a Modern Dentist: True Stories from above & beyond the Chair. Sherwin Shinn.


The Pact: Three Young Men Make a Promise and Fulfill a Dream. Sampson Davis.
The story of three young boys who made a pact while growing up in crime ridden Newark, New Jersey that they would make something of themselves. Two became doctors and one a dentist.

VETERINARY MEDICINE


Veterinarian’s Touch: Profiles of Life Among the Animals. Lee Gutkind.

Dr. Sue, A Vet in Africa. Sue Hart.

Every Living Thing. James Herriot.

It Really Does Happen to a Vet! The Journal of Joe Inglis in Practice. Joe Inglis.

Hiss and Tell: True Stories from the Files of a Cat Shrink. Pam Johnson.

True Horse Stories: Adventures of Vet Practice. Theresa Jones.


Doc – My Chickens Are Dying!: Memories of a Nebraska Veterinarian. Leo L. Lemonds.

From Baghdad, With Love: A Marine, the War, and a Dog Named Lava. Jay Kopelman.

Lost and Found. Jacqueline Sheehan.


The 10 Trusts: What We Must Do To Care for the Animal We Love. Jane Goodall.

Animals in Translation. Temple Grandin.

Chosen by a Horse. Susan Richards.
The Horses of Proud Spirit. Melanie Sue Bowles.

Hope Rising: Stories from the Ranch of Rescued Dreams. Kim Meeder.

Animal ER: Extraordinary Stories of Hope and Healing from One of the World’s Leading Veterinary Hospitals. Tufts University, School of Veterinary Medicine.


We bought a Zoo: The Amazing True Story of a Young Family, A Broken Down Zoo, and the 200 Wild Animals that Change their Lives Forever. Benjamin Mee.

Alex and Me: How a Scientist and a Parrot Uncovered a Hidden World of Animal Intelligence. Irene Pepperberg.

A Cat Named Squeaky. Vic Reskovic.

Life at the Zoo: Behind the Scenes with the Animal Doctors. Philip T. Robinson.


Whatever you do, Don’t run!: True Tales of a Botswana Safari Guide. Peter Allison.

Zamba: The True Story of the Greatest Lion that Ever Lived. Ralph Helfer.

All My Patients Have Tales: Favorite Stories from a Vet’s Practice. Jeff Wells.

Dogs Are People, Too. Louis Vine.


The Rhino with Glue on Shoes and Other Surprising True Stories of Zoo Vets and Their Patients. Spelman and Mashima.

Tell Me Where It Hurts: A Day of Humor, Healing, and Hope in My Life as an Animal Surgeon. Dr. Nick Trout.


Vet on the Wild Side. David Taylor