



# **Academic Advising and Pre-Medical Objective**

Each student has an opportunity to be advised by a Pre-Health Advisor in the Office of Academic Advising (OAA). Call (541) 346-3211 to schedule an appointment. Please see your academic advisor on a regular basis to confirm you are on track for your degree and medical school admission.

In order for the pre-health advisors to communicate directly to you and your interests, it is highly recommended to declare a Pre-Medical Professional Objective. To do so, email [health@uoregon.edu](mailto:health@uoregon.edu) with your name and University of Oregon (UO) ID number, or fill out a form in the OAA.

You are also encouraged to sign up for the Pre-Health mailing list, which provides students with timely announcements and a monthly newsletter. OAA also has a Pre-Health blog, located at [uoprehealth.wordpress.com](http://uoprehealth.wordpress.com), which is where more health information can be found.

## **Allopathic Medicine vs. Osteopathic Medicine**

When choosing a medical school, undergraduates have many choices to make including what type of medical school to attend. There are traditional medical schools offering graduates an M.D. degree (allopathic) and medical schools offering a D.O. degree (osteopathic). The curriculum at both types of schools is almost identical. State licensing agencies and residency programs recognize the degrees as equivalent.

The difference between the two types of schools is that osteopathic medical schools take a holistic approach to medicine based on a belief in treating the “whole patient” (mind-body-spirit) and the utility of osteopathic manipulative treatment. Allopathic medicine is described as the broad category of medical practice that is sometimes called modern or scientific medicine. Both doctors can practice in all areas of medicine, and ultimately the decision belongs to the student.

Oregon Health and Science University (OHSU) School of Medicine is an allopathic medical school and doctors earn an MD.

# Undergraduate Requirements for Medical School

## General Requirements

All medical schools require the equivalent of three years of full-time work in an accredited college or university and may require successful completion of a bachelors degree. If admitted without a degree, you are usually expected to complete your bachelor's degree within two years of starting medical school, either through the transfer of credit for work done at medical school or through summer session work. More than 90% of the first-year medical students in the nation have completed an undergraduate degree.

Oregon Health & Science University (OSHU) School of Medicine requires that a bachelor's degree be completed prior to first attendance.

## Specific Course Requirements

Specific course requirements vary among medical schools; minimum expectations are, however, markedly similar. All schools require some work in biology or zoology, chemistry, physics, and mathematics. Exact admissions requirements are detailed in the yearly revised Medical School Admissions Requirements: USA and Canada (MSAR). This text may be ordered through [www.aamc.org](http://www.aamc.org).

A recent edition of the MSAR is in the office of Pre-Medical Advisors in the Office of Academic Advising (364 Oregon Hall).

## Recommended University of Oregon Curriculum

The minimum requirements for admission to OHSU School of Medicine and many other medical schools can be met with the following classes:

- General Chemistry - CH 221, 222, 223 with laboratories CH 227, 228, 229  
**OR** Honors General Chemistry - CH 224, 225, 226 with laboratories CH 237, 238, 239.
- Organic Chemistry - CH 331, 335, 336 with laboratories CH 337, 338 (third term lab optional.)

- Biology - BI 251, 252, 253.  
**OR** General Biology - BIO 211, 212, 213 or 214  
 A pre-health advisor can assist you in determining which biology sequence you should take.
- College level math - MATH 111, 112 (your major may ask you for more advanced coursework)
- Calculus - MATH 251, 252 OR  
 MATH 246, 247 OR  
 MATH 261, 262  
 The need for calculus varies by each school. Check with school to verify if calculus is required or recommended.
- Humanities and Social Sciences - UO's General Education requirements will meet this requirement.
- General Physics - PHYS 201, 202, 203 with laboratories PHYS 204, 205, 206.

Advanced Placement (AP) credit are sometimes accepted for some required courses if such credits appear on an undergraduate transcript. Consult with a Pre-Health Advisor for clarification. All of the courses listed above must be taken for a letter grade.

If you took Advanced Placement (AP) tests and earned credit, you should speak with your advisors about the risks of by-passing lower-division science courses. *Not all medical schools accept AP work in lieu of requirements.*

**This curriculum on the following page is not set in stone. Talk to an Advisor for course plans that are right for you.**

# The Pre-Medical Curriculum

## First Year

Fall Term	Winter Term	Spring Term
CH 221 + 227 lab	CH 222 + 228 lab	CH 223 + 229 lab
-or-	-or-	-or-
CH 224 + 237 lab	CH 225 + 238 lab	CH 226 + 239 lab
MATH 111	MATH 112	MATH (if needed for major or school)

### Consider:

- Begin Health-Related Experience
- English Composition
- Arts & Letters, Social Science or Multicultural classes
- Major requirements (if a major has been chosen)

## Second Year

BI 251	BI 252	BI 253
CH 331 + 337 lab	CH 335 + 338 lab	CH 336

### Consider:

- Arts & Letters, Social Science or Multicultural classes
- Major requirements (if a major has been chosen)
- Apply for UO Scholarships<sup>2</sup>
- Apply for MCAT/AMCAS Fee Waivers

## Third Year

PHYS 201 + 204	PHYS 202 + 205	PHYS 203 + 206
CH 360 <sup>1</sup>	MCAT Prep Course	BI 320 <sup>1</sup>
		MCAT

### Consider:

- English literature
- Apply for UO Scholarships<sup>2</sup>
- Arts & Letters, Social Science or Multicultural classes
- Major requirements
- MCAT Prep Course
- Approach people for reference letters
- June - Earliest possible time for submitting medical school applications.

## Fourth Year

### Consider:

- Completion of all University and department requirements.
- Apply to medical school during the summer prior to senior year.
- May need to complete secondary application.
- May need to plan for interviews.

### Comments:

<sup>1</sup> OHSU requires 1 term of biochemistry and 1 term of genetics. You can use BI 214 or 251 for biochemistry and BI 214 or 252 for genetics, but you cannot use 1 course to meet 2 requirements. Example: You could use BI 214 for biochemistry and BI 320 for genetics or BI 214 for genetics and CH 360 for biochemistry.

<sup>2</sup> UO Pre-Med Scholarships are applied for yearly though the financial aid office. Scholarship deadlines are around February 15.

## Admission to the Post Baccalaureate Program

Post-bacs should consider a two year preparation model with some upper division work in biology and the spring MCAT, if possible. Consult a pre-medical advisor to create a plan that meets your individual needs. Below is only one example of a post-bac curriculum.

<b>Post-Baccalaureate Accelerated Pre-Medical Curriculum</b>		
<b>Summer</b>		
<b>Session 1: 4 weeks</b>	<b>Session 2: 3 weeks</b>	<b>Session 3: 4 weeks</b>
CHEM 221 & Lab 227	CHEM 222 + Lab 228	CHEM 223 & Lab 229
<b>Fall</b>	<b>Winter</b>	<b>Spring</b>
CH 331 & Lab 337	CH 335 & Lab 338	CH 336
BI 251	BI 252	BI 253
<b>Summer</b>		
<b>Session 1: 4 weeks</b>	<b>Session 2: 4 weeks</b>	<b>Session 3: 4 weeks</b>
PHYS 201 + Lab 204	PHYS 202 & Lab 205	PHYS 203 & Lab 206
		(August - MCAT)
<b>Fall</b>	<b>Winter</b>	<b>Spring</b>
CH 360		BI 320

- This model assumes math proficiency of at least Math 112 (Elementary Functions)

## **The Undergraduate Major and Academic Advising**

The curricular requirements described so far constitute the pre-medical program, but not an undergraduate major required to earn a bachelors degree.

### **Science Majors**

Given the pre-medical curriculum, the obvious and ready major is someplace in the sciences; chemistry, biology, biochemistry, human physiology, general science, mathematics, and physics dovetail most efficiently with the recommended classes. Many of the requirements for those majors are satisfied with the pre-medical offering. As the requirements vary considerably between the majors, you should plan your second year in college very carefully in anticipation of a major choice if you have not already committed yourself.

### **Non-Science Majors**

Almost all medical colleges make a special point of welcoming non-science majors. They emphasize their interest in candidates who demonstrate competency in other disciplines, from business to music. Obviously, it demands scrupulous planning to satisfy degree requirements in a non-science major and still complete the pre-medical curriculum. UO records show non-science majors are very successful in gaining admission.

### **The Major as an Alternative Career**

As a pre-medical student, you should face realistically the possibility of not gaining admittance to medical studies. What will you do if you are not accepted? Another allied health career? Reapply? Don't be surprised if you are asked this often by friends, advisors, and interviewers. It isn't intended to discourage you but to remind you of the realities of medical school application.

# Non-Curricular Requirements for Medical School Admission

The following can be found in the Medical School Admissions Requirements (MSAR), which can be purchased from the American Medical Association of Medical Colleges (AAMC) website.

## The Medical College Admissions Test (MCAT)

The MCAT includes 4 sub tests:

- Verbal Reasoning
- Physical Sciences (General Physics & General Chemistry)
- Writing Sample
- Biological Sciences (Biology & Organic Chemistry)

The best preparation for the science examinations is the required pre-medical coursework. The verbal reasoning section can best be prepared for through study in the university's arts and letters and social science curriculum. Improving writing abilities requires writing experience spread out over as long a time as possible, including the freshman composition courses and any other course which permits (or requires) that students write term papers and essay examinations in lieu of standardized multiple-choice questions. **Watch for the Teaching and Learning Center MCAT preparation workshop in the winter or summer term.**

The MCAT is given 22 times per year from January to September each year. The computerized MCAT takes 30 days to score. Students can take the exam between January and June and still have their MCAT scores available for timely submission of medical school applications in July. July, August, and September test dates are also available, but students should plan for earlier test dates if applying that academic year. Both allopathic and osteopathic schools require the MCAT. Advance registration is

required to take the MCAT. For more information and to register for the MCAT, go to <<http://www.aamc.org/mcat/>>.

## **Reference Letters**

The letters of recommendation you submit to medical schools are extremely important. It is your obligation to become familiar with potential letter writers who provide clear, confidential judgments of you as a student and as a human being. You must find writers who can provide what transcripts and test scores cannot: an estimate of your character, motivation, imagination, originality, scope of interests and skills, and your emotional maturity. Medical schools want information that can help them confirm that you will be a good science student and that you have the personality traits to be a competent physician.

Since the University of Oregon does not compose an institutional letter, you will need to approach individuals for letters of evaluation. Check the admission requirements school by school for instructions about letters of recommendations, because some schools ask you to use an application - service specific evaluation for in lieu of or in addition to the letter from the evaluator, many times signed, and on letterhead.

AMCAS accepts letters of recommendation directly. There are more options, however, for you to manage your letters online. The University of Oregon has partnered with Interfolio, a credential management service, to give pre-health students an affordable way to manage and send files to medical schools. For more information visit their website at: *www.interfolio.com*.

All medical schools prefer confidential reference letters. Whether you select a reference letter service or send letters in on your own be sure your letters are confidential.

## **Official Transcripts**

All medical schools require official transcripts from every college you have attended. Although few medical schools publicly list mandatory GPAs for admission, accumulated statistics illustrate that only applicants with averages at 3.3 and above stand a good

chance of admission. The recent national mean for accepted applicants was 3.6 in all college work. 3.6+ in science has been the mean at OHSU for several years.

### **Take all required courses graded.**

In general, you should avoid dropping below a full academic load of 15 or 16 credit hours.

### **Health-Related Experience**

Health-related experiences are a necessary part of the preparation for medical school. Not only is this a test of your own interests, but it is the exposure necessary to understanding what a medical career entails. Types of experiences are varied and you are encouraged to find something of interest to you. A research environment is also relevant. The experience does not have to be volunteer although in most situations this will be the case. CNA or phlebotomy training are two ways to acquire health related experience while being paid. Use the Office of Academic Advising's website, [advising.uoregon.edu/AA\\_Pages/AA\\_PreHealth\\_Opps.html](http://advising.uoregon.edu/AA_Pages/AA_PreHealth_Opps.html), to locate health related opportunities in the area.

### **Selecting Medical Schools**

Begin thinking about selecting medical schools long in advance of the application time. A reasonable approach is to review the Medical School Admission Requirements (MSAR) and the Osteopathic Medical College Information book. Cross-check the school's website for information on their academic program and profiles of recent classes. Then, read the individual school catalogs; ask critical questions of yourself and your interests: Do you want to wait until your third year for clinical experiences? Do you want schools which have only Pass/No Pass grading systems? Do you want instructional programs that are self-managed? Computer managed? A common question at interviews is "Why do you want to come to this particular school?" You must have an informed answer. In selecting schools, you should ask yourself how you will finance your education.

Most students apply to 10-11 schools. If your grades and MCATs are below the national means of accepted students, you might wish to apply to more schools, but don't waste time and money applying to schools far above your qualifications.

### **Foreign Medical Schools**

Information about this route to medical school is available from a pre-medical advisor.

## **The Application Process**

### **The American Medical College Application Service (AMCAS)**

There are 132 AAMC member schools of which 126 allopathic medical colleges use the AMCAS. AMCAS non-profit service organized and administered by the AAMC. The service acts as a clearinghouse: collecting, processing, and distributing the materials of application. Many medical schools use AMCAS as the first of a multi-stage process. OHSU will only accept applications through AMCAS. The AMCAS application is electronic. You may access it at [www.aamc.org](http://www.aamc.org) from May to October. Plan to apply no later than August.

### **Non-AMCAS Schools**

You will have to contact schools directly that are not utilizing the AMCAS to request individual application materials. The MSAR indicates participating and non-participating schools as well as the earliest dates application forms may be requested.

### **The American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS)**

There are 26 Osteopathic schools which handle applications through the AACOMAS application service. They begin application processing June of each year. Applications should be submitted as soon as possible as most schools will want to contact the student for further information such as letters of recommendation and secondary application forms.

Most application deadlines are in November of the year prior to

admission, but early application is important. See [www.aacom.org](http://www.aacom.org) for more information.

### **The Personal Interview**

The personal interview is generally required of all serious contenders. Institutions may conduct interviews with an entire admission team or a single field representative. Anticipate and be prepared for any mode of interview. Be prepared for the cost of interview trips.

Ideally, the interview is two-way. The interviewer wants additional information about you, and you should want some specific information about the school. The interviewers often begin by referring to your personal statement, asking for elaboration; they might ask you about your academic successes and failures, your special interests in medicine, or your reasons for choosing their particular school, but they also want you to demonstrate a potential for conversation. Potential candidates can begin interviewing early as August.

Practicing the interview may be good for some candidates to calm nerves. Contact the UO Career Center for a practice interview.

### **The Early Decision Program:**

Some institutions have decided to announce appointments to medical school for a selected small group early in the fall. MSAR lists participating schools. Under the Early Decision Program, the student can apply to a single participating school of his/her choice in early summer and expect a decision usually by October 1st. The student cannot apply to more than one school until a decision is reached, and she/he is committed to accept any offer given.

The Early Decision Program is designed only for the superior candidate—the candidate with excellent chances of being admitted to any medical school. Some state medical schools will consider non-resident applicants only through the Early Decision Program. OHSU does not accept early decision applications.

## **Chances for Admission: Self Evaluation**

The best way to assess your chances for gaining admission to medical school begins with a review of selection features.

Admission to both allopathic (MD) and osteopathic (DO) medical schools is highly competitive, and more student apply than can be admitted. Early planning and preparation is virtually essential for improving your chances for successful admission. Do not fall into the “trap of the minimums,” as virtually no one with just the minimums gets into medical school. Going above and beyond the minimum admission requirements is a very good thing! Over and over again, admission websites and committees stress the importance of the “whole candidate,” representing your academics, extra-curricular activities, leadership, motivation, experience and character. Above all, there is no guarantee of being accepted. Even the most qualified candidates may have to apply more than once.

### **Applicants and Admission Statistics**

OHSU admits 115 students to its medical program each year. In 2010, 70% of the matriculants were residents of Oregon. The average GPA of matriculated students in 2010 was 3.63. Reapplication by strong students is usually welcome.

### **Residence**

The likelihood of acceptance is greatest at the public institutions in the state of which you are a resident. OHSU does accept non-residents. Private schools do not preference residents and therefore all applicants are considered.

### **Academic Record**

The GPA is critical in selection. The national mean has been 3.5 to 3.6 for some time. Good grades, by themselves, guarantee nothing. They do indicate a solid performance in the past and can be used to predict a high probability of repeated success in the first two years of the medical school curriculum. It is clear that students with a 3.2 GPA and below are in a high-risk category.

## **Experience**

Grades prove scientific competence; medically allied experience can demonstrate both your commitment and your understanding of health careers. Review opportunities for local medically related experiences at the Office of Academic Advising's website: [advising.uoregon.edu/AA\\_Pages/AA\\_PreHealth\\_Opps.html](http://advising.uoregon.edu/AA_Pages/AA_PreHealth_Opps.html). Don't ignore this important part of your preparation. Health-related experiences are required at most schools.

## **Minority Students**

All U.S. public and private schools are seeking underrepresented minority and other non-traditional applicants. Be sure to contact a pre-medical advisor for information.

## **International Students**

When applying to public schools, foreign students are considered non-residents. Private schools accept some foreign students; review the MSAR for recent statistics. Students with permanent residence (green card) status are considered U.S. residents.

# **Of Special Interest**

## **Asklepiads**

The Asklepiads is a club at the U of O, formed by students who are interested in pursuing a medical career. The Asklepiads provides opportunities for medical preceptorships, volunteer projects, and presentations by relevant speakers.

Email: [premed@uoregon.edu](mailto:premed@uoregon.edu)

## **Scholarships**

The Pre-Medical Scholarship Committee awards six scholarships each year.

The Kenneth A.J. MacKenzie Memorial Scholarship is awarded annually to an outstanding pre-medical student accepted for enrollment in OHSU for the following year.

The John J. and Corabelle Rogers, John Fielding Ambrose, Glenn and Marjorie Keiper, Minnie Morden, and William and Marjorie Shearon Memorial scholarships are awarded annually to a pre-medical students on the basis of scholarship and financial need. The awards are for one year. The awardee must

have demonstrated scholastic aptitude at the level generally needed for admission to medical schools and fully intend to enroll in medical school upon completion of his/her pre-medical curriculum.

We strongly encourage all pre-medical students to apply for all university scholarships through the office of student Financial Aid at: *financialaid.uoregon.edu*

For more information see *advising.uoregon.edu/prehealth/scholarships.htm* or contact a pre-medical advisor in 364 Oregon Hall. Financial assistance is also available through military scholarships.

### **OSHU Statistics for 2010**

Average age of Admission: 26

Average Cumulative GPA 3.63

Average Science GPA 3.56

### **Websites for more information and which provided material for this booklet include:**

- American Association of Medical Colleges (AAMC)  
*www.aamc.org*
- American Association of College of Osteopathic Medicine (AACOM)  
*www.aacom.org*
- Oregon Health and Science University (OHSU) School of Medicine  
*www.ohsu.com*
- Association of Chiropractic Colleges  
*www.chirocolleges.org*
- American Association of Naturopathic Physicians  
*www.naturopathic.org*
- American Association of Colleges of Podiatric Medicine  
*www.aacpm.org*
- American Association of Oriental Medicine  
*www.aaaomonline.org*

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