

Printable on Medical School Advising and Resources

This document contains the following information:

- UAR Advising and Resources
- UAR and other mailing lists
- Deciding on medical school
- Preparation and academic planning
- Choosing a medical school
- The medical school application

UAR Advising and Resources for Medical School

- One-on-one consultation for freshmen and sophomores with UAR academic advisors. To arrange a consultation, contact UAR@vpue.stanford.edu; (650) 724-7562; or use our online application at ual.stanford.edu
- One-on-one application consultations for juniors and seniors with UAR academic advisors to discuss the application process, school selection, timelines, and other issues. To arrange a consultation, contact UAR@vpue.stanford.edu; (650) 723-2426; or use our online application at uar.stanford.edu.
- One-on-one consultations with UAR academic advisors on personal statements. To arrange a consultation, contact UAR@vpue.stanford.edu; (650) 723-2426; or use our online application form at uar.stanford.edu.
- For up-to-date requirements, see the 2007-2008 Medical School Admission Requirements (MSAR) in the UAR Library. You may ask for a copy at the front desk.
- Resources available at the UAR reading library that can help you with your selection of schools:
 1. Catalogs of U.S. and Canadian medical schools.
 2. *Medical School Statistics for Stanford Students*: updated yearly, this handout provides information about where our students applied to and were accepted, including offering average GPA information.
 3. *Medical School Student Surveys*: this survey is sent to Stanford graduates enrolled as second and third year students at medical schools across the country. It attempts to profile the sort of information not readily found in catalogs, such as atmosphere of the school, classes, opportunities for community involvement. .
- You are also encouraged to consult your advisor, professors.
- Mailing lists:

The UAR maintains a mailing list for students interested in the health professions to inform them about current events of interest to these groups, such as visiting schools, special conferences, volunteer opportunities and various activities in which they might participate.

To subscribe, send an email to: LISTNAME-join@lists.stanford.edu

INTEREST	TOPIC	LIST NAME
Pre-Med	Freshman	2011-pre-med
Pre-Med	Sophomore	2010-pre-med
Pre-Med	Junior	2009-pre-med
Pre-Med	Senior	2008-pre-med
Pre-Med	All Classes	stanford-pre-med

Preparation and Academic Planning

How and how quickly you prepare depends on the medical program you wish you enter and your own individual path to that program. Please consult with your UAR advisor to explore programs that will allow you to major in the humanities, or curricular choices at Stanford that will still prepare you for medical school.

Shadowing

As you think about becoming a physician, it is helpful to learn about the profession directly. It is important that you take advantage of the opportunities Stanford offers to help you find professionals who are willing to talk to you about their experiences. The Career Development Center has a shadowing program where you can spend time with alumni in the community who are physicians. The UAR coordinates the Stanford Immersion in Medicine Program, where students apply to shadow Stanford Medical Center physicians for a quarter. For more information about this shadowing program, please refer to their website at <http://sims.stanford.edu>

Clinical Experience

It is essential that you give yourself the opportunity to explore what it's like to be with and around patients in a medical setting not only to reaffirm your desire to work in health care, but to demonstrate in your application to medical schools that your exposure has given you insight into the health care environment

In seeking a health care related work experience, use your imagination. You can volunteer with the physically or emotionally disabled, work at a crisis hotline, as a peer contraceptive counselor, or at an alternative health care clinic, to name just a few. Look for opportunities that will help you gain exposure to this field.

For information on clinical opportunities in the area, please come by the UAR resource center and pick up our handout on "Volunteer Opportunities for Students Interested in the Health Sciences" or come speak with an advisor at UAR or the Haas Center.

Research

Research experience is not a requirement for medical schools. Stanford, however, offers many opportunities for undergraduates to explore research in many disciplines. Some schools look favorably upon research experience, and it can also be a good source to obtain a letter of recommendation. More importantly, it can allow you to explore research to determine if it might be something you would like to pursue in the future either by obtaining a Ph.D. or a combined MD/Ph.D.

For more information about research opportunities at Stanford, you can explore summer and term-time research opportunities. Refer to the following websites:

Departmental and Laboratory websites (see Stanford Directory)

Undergraduate Advising and Research: <http://studentgrants.stanford.edu>

Stanford Medical Faculty Research Directory: <http://med.stanford.edu/profiles/>

Academic Planning Guide for Students Interested in Medicine

There is no pre-med major at Stanford. There are required courses that applicants must complete for admission to medical school.

The requirements for admission to medical school are determined by each individual medical school and may vary. For specific school requirements, you should refer to the *MSAR: Medical School Admissions Requirements* (available at the UAR Resource Library) or the medical school's website. Listed here are the typical requirements and Stanford courses that fulfill those requirements. The following courses are suggestions designed to help you address the requirements.

Because the pre-medical curriculum is a component of a student's education at Stanford, but not a major, students can explore a wide variety of academic areas and majors according to their area of interest. When courses are taken often depends on when the student plans to enter medical school. **Please note: it is possible to depart from the following suggestions but be sure to consult with an experienced UAR advisor first!**

REQUIREMENT (NATIONAL) DESCRIPTION STANFORD COURSE(S) YEAR
USUALLY TAKEN



ACADEMIC PLANNING GUIDE FOR STUDENTS INTERESTED IN MEDICINE

The requirements for admission to medical schools are determined by the individual medical schools. Listed here are the typical requirements and Stanford courses that fulfill those requirements. Please refer to the Medical School Admissions

Requirements (MSAR) guide in the UAP Resource Collection for the specifics of all U.S. and Canadian medical schools.

Requirement (National)	Description	Stanford Course(s)
General/Inorganic Chemistry	1 year requirement with lab	Chem 31A & 31B OR 31X – AND — Chem 135 OR 171 AND 181/183(please see back for details)
Organic Chemistry	1 year with lab work*	Chem 33, 35, 131 <i>Chem 36, 130 (labs)</i>
Biology	1 year with lab work*	Biology 41,42,43 OR Human Biology 2A/B, 3A/B, 4A/B
	Biology labs* 2 quarters	<i>Biology 44X & 44Y OR Biology 54 & 55 OR (research) Biology 44X & Surgery 101</i>
Physics	1 year with lab work*	Physics 21/22, 23/24, 25/26 OR Physics 41, 43/44, 45/46
English	1 year (should include writing skills)	PWR Course Requirements
		Additional class is choice of student. Many schools accept IHUM for the 3 rd quarter, but an English course is strongly recommended
Math	2 or 3 quarters	Math 19, 20, 21 (Calculus) OR Math 41, 42 (Calculus) OR Math 51 (Linear Algebra) OR CME 100 AND Psych 10 (or any Statistics course)

*Course numbers in italics are labs. Please see reverse for more details about how to choose courses.

Proper Sequencing of Courses (cont. from front)

Since the pre-medical curriculum is a component of a student's education at Stanford, but not a major, students can explore a wide variety of academic areas and majors according to their area of interest. When courses are taken often depends on when the student plans to enter medical school. Many of our students take a year off between

their undergraduate and graduate degree programs, allowing them to pace their pre-medical courses accordingly.

It usually takes a year to complete the entire application process. Currently, the Medical College Admissions Test (MCAT) is offered multiple times during the year. Most science courses listed on the previous page should be completed (with exception of the labs) before taking the MCAT. Medical schools prefer the early exams so that the scores are available by mid June.

PLEASE NOTE:

- Medical schools are not consistent with how they view **AP credit**. We recommend you take an additional course at the university level even if you have the AP units in math or physics. Please refer to the Medical School Admissions Requirements (MSAR) guide for information about all U.S. and Canadian medical schools. The MSAR is available in the UAR library.
- The chemistry sequence at Stanford is unique, and the courses are not easily matched to those at other colleges and universities, especially if you are trying to match quarter classes to semester classes. Please consult a pre-health advisor if you think you might try to complete chemistry requirements elsewhere.
- Many schools are now requiring a quarter of biochemistry (Chem 181). Please note that there are pre- and co-requisites for this course, one of which is Chem 135, so check the bulletin and plan accordingly.
- Advanced coursework in biology (such as molecular biology and genetics) is highly recommended by many medical schools.
- Please exercise caution if switching from the Biology core to the Human Biology core, or vice versa. If you switch in the middle, you risk missing material that might be covered on the MCAT. You need to contact the department before making the change to either core.
- Taking a year off before medical school is often a healthy alternative and allows students much more flexibility in scheduling their pre-medical courses. It also further allows students to explore diverse curricular programs, such as studying abroad, becoming involved in research projects, etc. over their full four years at Stanford.

Choosing a Medical School

Applying to medical school is costly and time consuming. You owe it to yourself to carefully choose the schools to which you would like to apply. Perhaps the best way to get started on compiling your list of schools is to consult the latest edition of Medical School Admissions Requirements (MSAR). This book, published by the Association of American Medical Colleges, contains profiles of each.

U.S. and Canadian medical school as well as information on curricular planning, application procedures, cost, and admission statistics. New editions of MSAR are published each May. You may use reference copies at the UAR or can purchase your own at the Stanford Bookstore or at http://services.aamc.org/AAMC_store/catalog.cfm.

Another helpful source is the American Association of Medical Colleges website (<http://www.aamc.org>). This website offers information on all U.S. and Canadian medical schools while exploring areas such as curriculum, combined degree programs, special programs, statistics, etc.

Listed below are some additional resources available at the UAR which can help you with your selection of schools.

- Catalogs of U.S. and Canadian medical schools.
- *Medical School Statistics for Stanford Students*: updated yearly, this handout provides information about where our students applied to and were accepted, including offering average GPA information.
- *Medical School Student Surveys*: this survey is sent to Stanford graduates enrolled as second and third year students at medical schools across the country. It attempts to profile the sort of information not readily found in catalogs, such as atmosphere of the school, what to do in that location, etc.
- Talk to upperclassmen and your peers. Take advantage of seniors who have just been on interviewing trips -- they'll have more personalized and recent information on schools.

You are also encouraged to consult your advisor, professors, and to speak with the pre-med advisors at the UAR.

Combined Programs

MD/Ph.D.

MD/Ph.D. programs are appropriate for students who are especially interested in research and/or academic medicine. It is essential that students who are considering an MD/Ph.D program explore research opportunities early in their undergraduate years. Be aware that applications vary for these programs, so you should check each individual school's website for their particular requirements.

MSTP (Medical Scientist Training Program) is a federally funded program for exceptional students who wish to obtain an MD/Ph.D. Currently, 39 medical schools offer this program. In addition to covering expenses, MSTP students also receive a stipend.

For more information about these programs, including a list of schools that offer MSTP and MD/Ph.D programs, please visit:

<http://www.aamc.org/students/considering/research.htm>

MD/MPH

Some students may find that they have an interest in Public Health and want to study this area more in depth in addition to obtaining their MD degree. There are many schools that offer a combined program where students can pursue both areas of interest. To learn more about what schools offer a combined MD/MPH degree you can go to:

<http://services.aamc.org/currdir/section3/degree2.cfm> or consult the MSAR.

To learn more about Public Health in general and schools that offer a degree in Public Health, you can visit the Association of Schools of Public Health website:

<http://www.asph.org>

You can also visit the UAR's resource library to obtain more information about Public Health.

Application Process and Timeline

It usually takes a year to complete the entire application process. Currently, the Medical College Admissions Test (MCAT) is taken one year before entrance. Most science courses should be completed (with exception of the labs) before taking the MCAT. Medical schools prefer that you take the MCAT in time for scores to be available by mid-June. Taking a year off before medical school is often a good choice and allows students much more flexibility in scheduling their pre-medical courses. It also further allows students to explore the diverse curriculum and programs that are offered, such as studying abroad, becoming involved in research projects, etc. over their full four years at Stanford.

AMCAS. Most schools utilize the American Association of Medical Colleges Application Service (AMCAS) as a primary application. In this application you are required to submit some demographic information, a personal statement, a listing of extra-curricular involvement, jobs, and college courses taken. You then select the medical schools to which you would like them to forward this application. For more information concerning AMCAS, visit:

<http://www.aamc.org/students/amcas/start.htm>

For more information concerning the application process, you can go to:

<http://www.aamc.org/students/applying/start.htm>

There are schools that do not use AMCAS and have their own application procedures, such as the Texas medical schools. That information is available via their individual websites.

MCAT. The MCAT is a test that is required for the medical school application process. It is a test that should be taken after you have completed your pre-medical requirements with the exception of the labs.

As of 2007, the MCAT will be computer-based and offered on 19 dates during the calendar year. For more information about the MCAT (registration, practice tests, information on content, etc.), please visit:

<http://www.aamc.org/students/mcat/start.htm>

These are the Stanford courses that should be completed prior to taking the MCAT:

- Chemistry 31 , 33, 35, 131
- Biology 41, 42, 43 OR Hum Bio 2A, 3A, 4A
- Physics 21, 23, 25 OR Physics 41, 43, 455

For more information about MCAT content, structure, and sample sections, please visit:

<http://www.aamc.org/students/mcat/start.htm>

Timeline

January

- For those students who plan to take a spring MCAT, now is the time prepare!
- Make a list of professors and individuals who you might ask for a letter of recommendation. It is not too late to begin to get to know some of your professors. Make it a point to go speak to some of them this quarter.

March

- Over the break, draft ideas for your personal statement.
- Start compiling a list of medical schools you are considering. Research them via the web and by using the catalogues and student surveys available at the UAR resource library.

April

- Make appointments with your chosen professors and other individuals for letters of recommendation.

May

- Attend the AMCAS workshop (time and location are sent via the pre-med junior and pre-med senior email distribution lists).
- Email the pre-health advisors a copy of your personal statement. We provide feedback to your essays in 3-4 days. If you decide to wait until the summer, we might not be able to get it back to you as quickly. Make an appointment to come see us if you need help getting started or if you would like to talk about the revisions we made.

- Meet with a pre-health advisor if you are having difficulty in selecting medical schools to which you want to apply.

June-August

- Submit your AMCAS application online.
- Contact UAR academic advisors should you have any questions about the process. To arrange a consultation, contact UAR@vpue.stanford.edu; (650) 723-2436; or use our online application form at uar.stanford.edu.

July-December

- Soon after you have submitted your primary application, some schools begin to send you secondary applications. These applications are usually due back to the individual medical schools two to four weeks after you receive them.
- Medical schools will also begin to ask you to send your letters of recommendation.

September - March

- Med school interviews take place anytime within this time period depending on the date you submitted your application.

October - April

- Acceptances to medical school are given out throughout this time period.
- Students are notified if they are wait-listed in certain programs.

May

- For students who are accepted at multiple medical schools, you should decide which one you prefer to attend and withdraw your acceptances from other schools.

June - September

- Your journey into medical school begins! The starting date will vary by school.

Letters of Recommendation

Letters of recommendation are a very important part of your medical school applications. You should make every effort to obtain high quality, meaningful letters. The earlier you get started on soliciting recommendations, the better. If you re applying to enter medical school in the Fall after you graduate, you will want to begin to approach recommenders in your junior year. Some general guidelines are provided here. You re encouraged to speak with advisors at the UAR if you have questions or concerns about how many and what sorts of letters you should obtain.

PLEASE NOTE:

STANFORD DOES NOT HAVE A PREMED COMMITTEE LETTER.

Each medical school has its own requirement for recommendations. Some want your letters immediately, others will do a preliminary screening before they ask for recommendations. In all cases, you wait for the school to ask for letters before you send them. Most requests are made when the medical school sends you a secondary application. The number of letters the school requests also varies. Generally speaking, you should obtain 5 letters: 2 from science professors who have taught you; 1 from a non-science professor who has taught you; and 2 extra letters, provided from experiences such as research, volunteering, jobs, coaches, etc.

As a service to both yourself and your recommenders, you should establish a reference file at the Career Development Center (CDC). By registering for the service, you may ask the CDC to file, duplicate, and mail your recommendations to the medical schools of your choice. You should stop by the CDC and pick up a complete set of instructions and information about the service before you begin to approach your recommenders. For more information about this service, visit: <http://cdc-records.stanford.edu/reference/>