

## **REQUIREMENTS FOR MEDICAL/DENTAL SCHOOL ADMISSION**

All medical schools share certain basic requirements for admission. These fall into six major categories: courses, grades, MCAT/DAT scores, health care/public service experience, communication skills, and recommendations. The application process normally begins at the end of the junior year, so you must *begin attending to each of these six areas now!*

### 1) COURSE REQUIREMENTS

- 2 semesters of general biology with lab (Biology 110/151 and either Biology 201 or 202)
- 2 semesters of general physics with lab (Physics 131/151 and 132/152)
- 2 semesters of general chemistry with lab (Chemistry 110/151 and 221/152)
- 2 semesters of organic chemistry with lab (Chemistry 230/251 and 232/252)

\*Note that Math 141 and 142 (Calculus I and II) are also pre- or co-requisites for Physics 131 and 132, so these courses are also required.

\*Also, while Psychology courses are not yet required for entrance to medical school, they will be required to do well on the new MCAT as of 2015 (see below), so you should plan to take Psychology 101 and 102.

\*Other courses may be required at specific schools. As an example, VCU Dental School requires Biochemistry for all applicants, and this will also be a focus area of the new MCAT in 2015.

You must perform well in these required courses for two reasons:

First and second year medical curricula are heavily biased toward natural sciences. Medical schools use these courses to predict whether or not you can handle the work.

The MCAT tests your abilities in the basic sciences. If you don't have the background for this critical and rigorous standardized exam, you simply will not do well.

Therefore you must *study for mastery* in basic sciences courses. **DO NOT CRAM**— work steadily and study for the long term, so that you will be able to recall concepts and details. Plan on completing course requirements for your application as early as possible (usually by the end of junior year) so that you can review material and take additional courses (microbiology, immunology, virology, cell biology, histology anatomy/physiology, molecular biology, medical genetics, etc.) to enhance your knowledge and chances of scoring well on the MCAT and being a competitive medical school applicant. While it will not be possible to take all of these courses, exposure to the topics covered in these types of courses will help in your preparation for the MCAT and in your transition to science-heavy course loads in medical school.

Here is a sample schedule for a typical freshman premedical student:

<u>FALL</u>		<u>SPRING</u>	
<i>Rhet</i> 101	3	<i>Rhet</i> 102	3
<i>Span</i> 101	3	<i>Span</i> 102	3
<i>Chem</i> 110/151	4	<i>Chem</i> 221/152	4
<i>Biol</i> 110/151	4	<i>Biol</i> 201 or 202	4
<i>Western Culture</i> 101	3	<i>Western Culture</i> 102	3
<b>TOTAL</b>	<b>17</b>	<b>TOTAL</b>	<b>17</b>

## 2) GRADE POINT AVERAGE

- A competitive GPA is *3.5 or better* in the sciences and overall.

## 3) MCAT (MEDICAL COLLEGE ADMISSION TEST)

- Scores of a *minimum of 9* in each category (biological sciences, physical sciences, verbal reasoning) must be obtained; lower scores will jeopardize chances for admission.

\*Note that the MCAT Exam will change in the year 2015 to test for competency in the following areas:

- 1) *Biological and Biochemical Foundations of Living Systems,*
- 2) *Chemical and Physical Foundations of Biological Systems,*
- 3) *Psychological, Social and Biological Foundations of Behavior,* and
- 4) *Critical Analysis and Reasoning Skills*

Therefore, in addition to the required courses for acceptance into Medical School, you will need to supplement those courses with a variety of other upper level biology courses, biochemistry (either the Biochemistry course itself or other courses in which you will be exposed to biochemistry), and psychology/sociology courses (Psychology 101/102 at H-SC cover this field as both a natural and social science, respectively).

## 4) HEALTH CARE/PUBLIC SERVICE EXPERIENCE

- All medical schools *require* candidates to have exposure to or experience in health care, for example as an employee or volunteer at a hospital, physician's office, or geriatric care center, or as an emergency medical technician. This not only assures you that you know what it is like to care for ill and injured people, but it assures you that you have made the proper career choice. Experience in public service is also important; medical schools look for candidates who are actively involved in their communities. Note that this requirement can often be combined with health care experience. Also, our students have volunteered in many areas of community life here, such as tutoring in the public schools or helping with out-reach activities with fraternities and campus organizations.

- To assist students in obtaining significant healthcare exposure, in 2015 H-SC established an affiliation with Centra Health, and the H-SC/Centra Pre-Health Rotational Shadowing Program will allow competitive students to shadow physicians in various departments at Centra Southside Community Hospital during the academic year. Departments included in this rotation are:

- Family Medicine
- General Surgery
- Cardiovascular Group
- Emergency Department
- ICU
- Gastrointestinal
- OB
- Radiology
- Pharmacy

## 5) COMMUNICATION SKILLS

- Medical practice will *require* you to write concise, cogent reports and to talk with patients and colleagues clearly and gracefully. Medical schools look closely at your application essays and interview performance to judge the effectiveness of your communication skills.

## 6) RECOMMENDATIONS

- Medical schools look for strong recommendations from faculty and others (particularly physicians) with whom you have worked. Your H-SC recommendation, a committee letter from the Health Sciences Advisory Committee, will be written after an interview in the spring of your junior year and will be based largely on this interview, your information form, and letters from up to a dozen faculty members. Get to know your professors, especially the members of the HEALTH SCIENCES ADVISORY COMMITTEE:

Dr. Kristian Hargadon, Biology – Committee Chair

Dr. Hugh Thurman, Physics and Astronomy

Dr. Paul Mueller, Chemistry

Dr. Christine Varholý, English

Get to know other premedical students (freshmen and upperclassmen), especially the officers of the PRE-HEALTH SOCIETY, which sponsors a number of seminars by healthcare professionals and health program admissions representatives throughout the year:

Zack Martin, President

Taz DelDonna, Vice President

Luke Bloodworth, Secretary/Treasurer

Dr. Kristian Hargadon, Faculty Advisor

Finally, remember that medicine and dentistry are but two of many health care career choices. You do not need to become an MD or DDS to help people. Other professional opportunities—health administration, physician assistant (PA), physical/occupational therapist (PT/OT), and doctor of osteopathic medicine (DO), to name a few—can prove just as rewarding (in terms of intellectual challenge, social status, and financial compensation) and are becoming ever more popular, especially as medical schools decrease class sizes. Explore a variety of health care careers to determine which is right for you.

Your advisors, professors, and classmates will do all we can to ensure your success (please ask for our help), but the initiative and motivation must come mainly from you. It is critical that your preparation begin during the start of your 4 years at Hampden-Sydney College so that you may fulfill all of the requirements described herein.