

## Preparing for and Applying to Medical School

### *Academic Prerequisites for Medical School*

The following subject areas and courses offered at Connecticut College are *required as preparation for all medical schools*:

Chemistry 103, 104 or Chemistry 107, 202

Organic Chemistry 223, 224

Biology 105

Biology 106

General Physics 103, 104 or Physics 107, 108 or Physics 109, 110

\* NOTE: A number of medical schools will not accept AP credit for the above courses. Most medical schools prefer that these courses be taken in the United States. All of these courses should be completed before taking the Medical College Admission Test and applying to medical school

*Most medical schools also require:*

One year of English (some schools specify composition and literature).

One year of mathematics (many schools specify calculus)

*Coursework required or recommended by some schools:*

Biochemistry

Computer Science

Genetics

Psychology

Statistics

You are advised to check the specific requirements of medical schools to which you plan to apply. These may be found in the *Medical School Admissions Requirements* guide, updated annually, and medical school catalogs.

## *Planning a Course Schedule*

The first thing to consider is when you plan to begin medical school -- immediately after graduating from Connecticut College or a year or more later. Both options are perfectly acceptable to medical schools.

Individuals planning to enter medical school in the fall after they graduate should complete all the required courses by the end of their junior year. Because four year-long course sequences are required, it is necessary to take two together one year or go to summer school. Students who do not plan to begin medical school immediately following graduation will have more flexibility.

Several possible course sequences are as follows:

I.		<u>Fall</u>	<u>Spring</u>
	1 <sup>st</sup> year	Biology 105 Chemistry 103 or 107	Biology 106 Chemistry 104 or 202
	2 <sup>nd</sup> year	Chemistry 223	Chemistry 224
	3 <sup>rd</sup> year	Physics 103	Physics 104

This program is recommended for students who have a strong science background and are strongly motivated for a career in medicine or other health-related sciences. Taking both chemistry and biology in the freshman year also helps potential majors in biochemistry, chemistry, biology and zoology avoid an especially heavy load in their junior year.

For students who are less certain of their interest in the health sciences and want to keep their options open, one of the following sequences might be considered:

II.		<u>Fall</u>	<u>Spring</u>
	1 <sup>st</sup> year	Chemistry 103 or 107	Chemistry 104 or 202
	2 <sup>nd</sup> year	Biology 105 Chemistry 223	Cell 106 Chemistry 224
	3 <sup>rd</sup> year	Physics 103	Physics 104
III.		<u>Fall</u>	<u>Spring</u>
	1 <sup>st</sup> year	Mathematics 111 or 112 Biology 105	Mathematics 107 or 113 Biology 106
	2 <sup>nd</sup> year	Chemistry 103 or 107 Physics 103	Chemistry 104 or 202 Physics 104
	3 <sup>rd</sup> year	Chemistry 223	Chemistry 224

IV.		<u>Fall</u>	<u>Spring</u>
	1 <sup>st</sup> year	Physics 103 or 107	Physics 104 or 108
	2 <sup>nd</sup> year	Chemistry 103 or 107 Biology 105	Chemistry 104 or 202 Biology 106
	3 <sup>rd</sup> year	Chemistry 223	Chemistry 224

These sequences provide a somewhat lighter freshman year, but require the student to take chemistry and physics together or biology and chemistry together while also starting on their major requirements in the sophomore and junior year.

### ***College Major***

No one major field is preferred over another. While the largest number of applicants pursue science majors, admissions statistics show no preference toward this group. English, history and philosophy majors had a higher ratio of acceptance than biology majors. When choosing a major, consider your interests, aptitudes and educational goals.

Medical schools are most concerned with the overall quality and scope of undergraduate work. The schools also recognize the desirability of including students with a broad variety of interests and backgrounds in medical school classes. "College grades are perhaps the most important single predictor of medical school performance." (Medical School Admissions Requirements, page 35.) The recent mean undergraduate grade point average of first-year entrants nationally was 3.58.

### ***Health Care Experience***

Experience in a health care setting, especially a clinical setting, is strongly recommended. As a hospital volunteer, for example, you have the opportunity to interact with patients in a supportive role, observe the day-to-day activities of a physician and participate in a health care delivery system. Such experiences allow you to better assess your interest in a medical career, recognize some of the demands of patient care and demonstrate commitment to medicine.

Throughout the year, Connecticut College premed students may volunteer at Lawrence & Memorial Hospital in New London and the Backus Hospital in Norwich. It is advisable to obtain a position which involves patient contact. Positions available involve Emergency Department liaison work, patient transportation, installing lifeline monitors in patient homes, working with the Oncology Team and providing information about the hospital to patients and their families. If interested, contact the Office of Volunteers for Community Service, extension 2458 for an interview.

### ***Medical College Admissions Test (MCAT)***

The Medical College Admissions Test is required by all but two American Medical Schools (Johns Hopkins and University of Rochester do not). The MCAT is administered two times each year, in April and August. It must be completed at least one year in advance of anticipated admission to medical school. Most students planning to enroll immediately after graduation take the MCAT in April of their junior year (preferred) or in August prior to the start of their senior year.

Taking the test in April of the junior year allows the student a second chance in August if the initial scores are not competitive (if you do not perform well on the test, you should consider retaking it). Taking the test in April also allows for an earlier decision by the medical schools. Because medical school admission committees utilize a rolling admissions process, an August test does not allow your application to be considered as early as possible. However, the primary consideration is a strong performance. Schedule the test when you are the best prepared for it. In either case, begin submitting your application materials as soon as possible after June 1.

Subject areas covered on the MCAT include: Biological Sciences, Physical Sciences, Verbal Reasoning and a Writing Sample. The Writing Sample consists of two, half-hour essays on various topics. The essay section is assigned a letter score ranging from J (lowest) to T (highest). Performance on the other sections is rated on a scale of 1 (lowest) to 15 (highest).

To register for the MCAT test visit the official MCAT website at <http://www.aamc.org/students/mcat/start.htm>. The *New MCAT Student Manual*, published by the Association of American Medical Colleges, provides a description of the test and a practice test.

Students who have had difficulty on standardized tests or would like a more structured approach to preparation may wish to take a commercial prep course such as offered by Kaplan Educational Center or Princeton Review. The Kaplan course is conducted on the Connecticut College campus at various times throughout the school year. Contact Kaplan at 1-800-KAPTEST for further information. Tuition discounts are available at Kaplan for students who can demonstrate financial need. Contact Kaplan for a scholarship application form.

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

Most U.S. medical schools belong to a centralized application service called AMCAS. Students applying to AMCAS participating schools must utilize this service. Students fill out one AMCAS application and designate the schools to which they want their application sent (use the Semester System option for Connecticut College). The completed application materials and service fee should be forwarded directly to AMCAS. AMCAS will then distribute them to the medical schools.

The applicant also must request that official transcripts from all U.S. and Canadian schools attended be sent to AMCAS (see our Registrar's Office, and be sure your Spring Term grades have been posted before sending). This is true even if you have studied elsewhere and the credit has been transferred to your Connecticut College transcript. Transcripts from foreign schools are not required. However, if a study abroad program was sponsored by a U.S. college, you must send an official transcript from that U.S. school.

Most AMCAS participating schools have their own secondary applications, which they send out after receiving the AMCAS application. These take time to fill out (they may request additional essays and information), which again highlights the need to apply early in the summer.

To register for the AMCAS Application go to <http://www.aamc.org/students/amcas/start.htm>. AMCAS applications may be filed no earlier than June 1 (they will send it back to you before that time).

Individuals applying to non-AMCAS participating schools must contact these schools directly for application materials. Information and addresses of all U.S. medical schools are available in the Medical School Admission Requirements handbook. Official transcripts should be sent directly to non-AMCAS schools. You should arrange to have MCAT scores sent to them as well.

### ***Connecticut College Health Professions Advisory Committee and Board of Medical Practitioners***

During your junior year, you should make arrangements with the Health Professions Advisor to be interviewed by the Connecticut College Health Professions Advisory Committee and a member of the Connecticut College Board of Medical Practitioners. The Advisory Committee is comprised of faculty members and the Board is made up of practicing physicians in the New London Area.

These interviews serve a dual purpose. Information gathered by the Committee and Board member can be used for an overall letter of recommendation which the college provides to medical schools (most request or require such a letter). The interview also provides the student with valuable practice for actual medical school interviews (the Committee and Board member give feedback to students on their performance).

### ***Deciding Where to Apply***

Serious research is required when putting together the list of schools to which you will apply. The most critical issue is that of state residency.

State-supported medical schools will give strong preference to individuals from that state. Some, in fact, do not accept any out-of-state applicants. Students, therefore, should first consider applying to schools in their home state which give preference to in-state residents and avoid applying to schools from other states which accept few if any non-residents (see the Medical School Admissions Requirements book for this data).

This leaves the private medical schools and state-supported schools which do accept a reasonable number of out-of-state students. Examine the ratio of applicants to entrants at various schools, as some are better than others. For example, Boston University enrolls a reasonable number of out-of-state students (89 in a recent year). Yet they had 9,858 applicants for a ratio of less than 1%.

Virtually all private schools receive a huge number of applications due to their openness to non-residents. This makes them extremely competitive, as you will see from the applicant/enrollment ratios. However, take heart--they will need to accept more people than they actually enroll in order to fill their classes, as some individuals who are admitted will go to other schools. While this improves the ratios a bit, it still is very competitive.

Due to the extreme competitiveness of the whole process (there is no such thing as a safety school), it is advisable to apply to a large number of schools (at least 12 to 14 is a reasonable number).

Other factors to consider include the emphasis of the school (some are geared toward academic medicine and research, others toward primary care, etc.), cost, geographic location, prestige (ranking) and curriculum (see the AAMC Curriculum Directory and read the school catalog).

### ***Medical School Personal Statement***

The personal statement constitutes an important opportunity to present yourself in your own words to the Admissions Committee of a medical school. AMCAS requires a personal statement and many medical schools require additional personal essays. You must use the space allowed on the AMCAS form for your statement (the whole application should be typed).

This is an opportunity to articulate your interests and experiences, especially those related to the healthcare environment and research. Other topics might include how your interest in medicine came about, how you investigated this interest, your career goals, things about you which are unique (e.g. if a parent was in the Foreign Service and you grew up in a foreign country, etc.) and how you developed the skills and qualities important for a physician (caring, enjoy working with people, problem solving ability, work well under pressure, etc.).

### ***Medical School Interview***

An in-person interview is required by virtually all medical schools prior to an offer of acceptance. The interview provides a final screening and evaluation to the admissions committee. Since this is a people-oriented occupation, they will be checking out your interpersonal and communications skills. They will also probe your knowledge of current medical issues, their school in particular and ask you to elaborate on items listed on your application.

The interview gives you an opportunity to have personal contact with admissions officers, to communicate your motivation and commitment to a career in medicine (very important, due to the length of training required) and clarify any information on your application. You also will have an opportunity to ask questions and learn more about the school.

### ***Letters of Recommendation***

Letters of recommendation are an important part of the application process. You will want to obtain at least three letters from faculty members which assess your academic performance. These should include two letters from science faculty and one from a non-science discipline (there are schools which will require this). An excellent way to supplement faculty letters is to obtain one from a supervisor who supervised your volunteer or work experience in a health care setting. Another desirable letter would be from an individual under whom you have conducted research.

You will want to ask individuals who know you well and will write a substantive letter. It is advisable to ask people if they believe they can write you a strong letter. If you sense any ambivalence, withdraw your request and select another person.

Faculty from other schools you attended (during the summer, study abroad, etc.) also may be used. Letters from personal friends of the family or politicians will carry little weight unless they have supervised you in a work situation or volunteer job.

The easiest way to compile your letters is to establish a recommendation file at the Office of Career Enhancing Life Skills. CELS has standard recommendation forms which may be given to recommenders. Recommenders should fill them out and send them directly to CELS.

If the recommender prefers, he or she may type the letter on their own letterhead, but should also attach the CELS form indicating whether or not it is a confidential recommendation. You have a right to see what people say about you unless you waive your right (you will need to make that decision on the CELS form). Most medical schools prefer to see confidential letters. After three or four weeks, contact CELS to see if the letters have arrived.

Medical schools may have their own recommendation form, but will accept the CELS

form instead. These individual letters should be sent to medical schools along with the summary letter written by the Health Professions Advisor.

### ***Connecticut College Summary Letter of Recommendation***

After you have been interviewed by the Health Professions Advisory Committee and a physician from the Board of Medical Practitioners, the Health Professions Advisor will write you a summary letter of recommendation. This will be sent to the CELS Office and incorporated into your reference letter file. It is your responsibility to visit CELS and request in writing where you would like all of the letters sent.

### ***Research Opportunities at Connecticut College***

#### ***Zoology Department***

##### **Mary and Richard Scott Foundation Internship in Biomedical Sciences**

A ten-week, full-time summer research experience working with Professor Philip Barnes on research in genetics and evolution. Open to students completing their sophomore or junior years. Must be a science major with at least two years of biology and/or chemistry. The internship includes a stipend plus free housing. The deadline to apply is April 1.

Additional opportunities in the Biology Department may be available contingent upon faculty research grants. For further information, contact Professor Philip Barnes, Biology Department, at 439-2148.

#### ***Chemistry Department***

##### **Pfizer Central Research**

A winter internship in Pharmaceutical Chemistry is offered by Pfizer Central Research to qualifying junior or senior chemistry majors. This paid January internship consists of two full weeks working under the guidance of Pfizer scientists in their laboratories. Interested students should contact Professor Bruce Branchini, Chemistry Department, in October to apply.

##### **Keck Undergraduate Science Program**

The Keck Undergraduate Science Program supports undergraduate research. Supported by the W.M. Keck Foundation and the Marion Lowell Jenkins '25 Science Scholarship Fund, the program encourages students to undertake comprehensive research projects over the course of 18 months and includes research during the academic year and summer.

The program is open to all students in the Biological Sciences (Biology, Botany, Biology and Environmental Studies), Chemistry (including Biochemistry), Physics and Mathematics. Students at any level may apply; however, preference will be given to sophomores and juniors. Generally, seniors are not eligible since they will not have the time to complete the requirements for the program.

Proposals are due in November, in the Office of the Program Director, Professor Page Owen, 3108 New London Hall. For further information and complete instructions, please contact Professor Owen.

### ***Resources at the Office of Career Enhancing Life Skills***

Your main guide to the medical school application process is *Medical School Admissions Requirements*, published by the Association of American Medical Colleges. A copy is available on reserve at the CELS Office or you may purchase a copy by calling 202.828.0416.

Other resources available at the CELS Office Resource Library include books such as:

#### Health/Human Services Section

*Careers in Medicine*

*Planning Your Medical Career*

#### Medicine Section

*Medical School: The Interview and the Applicant*

*Medical School Curriculum Director*

*REA's Authoritative Guide to Medical and Dental Schools*

*Barron's Guide to Medical and Dental Schools*

*The Premedical Planning Guide*

*Medical School Application Results of Connecticut College Students*

## PREMEDICAL/PREDENTAL INFORMATION SHEET

### 1. CHOICE OF MAJOR

A science major IS NOT a prerequisite for medical school, and students should not major in science because they believe this will increase their chances for acceptance. Medical schools are most concerned with the overall quality of undergraduate work. Follow your true interests and work toward a goal of achieving the academic standing necessary for admission to medical or dental school. Due to the strong competition for medical school admission, it is important to be aware of other career alternatives.

### 2. FOUR-YEAR TIMETABLE FOR PREMEDICAL/DENTAL STUDENTS

#### Freshman Year:

- A. Register with Pre-health advisor (Mrs. Fallon, 309 Olin, x-2145).
- B. Begin premedical courses: consult with your academic advisor.
- C. Attend all pre-health orientations and workshops.
- D. Choose extracurricular activities that will provide medically-related experience.
- E. Prepare tentative schedule for required premedical courses throughout the next four years.
- F. Continually assess your motivation for a career in medicine.

#### Sophomore Year:

- A. Continue to take premedical courses.
- B. Continue to gain medically-related volunteer experience.
- C. Get to know faculty, particularly in areas related to premedical requirements. You will need at least two recommendations from science faculty to complete your medical school application.
- D. You are beginning to invest much of your time and effort into the pursuit of a medical career. Continue to assess your motivation for a career in medicine.

#### Junior Year:

- A. Complete premedical required course if you are planning to enter medical school in the Fall following graduation.

Purchase a Medical School Admissions Requirements handbook (published by the Association of American Medical Colleges). Available at the bookstore.

- B. Open a credentials file at CELS during the Spring of your Junior year or eighteen months prior to when you plan to enter medical school.
- C. Request academic recommendations. Most medical schools require two recommendations from science faculty and one from non-science faculty.
- D. In the Fall, set up a Spring interview with the Health Professions Advisory Committee (See Mrs. Fallon).

- E. Write your personal statement which will be required for inclusion in your medical school application and for your interview with the Health Professions Advisory Committee.
- F. Prepare for and take the MCAT's (Medical College Admission Test) in April. Registration material is available on line in February.  
(<http://www.aamc.org/students/mcat/start.htm>)
- G. Set up an appointment with one member of our Board of Medical Practitioners. This must be completed by the end of Junior year.
- H. File AMCAS (American Medical College Application Service) application (not before June 15). Registration material is available on line in April.  
(<http://www.aamc.org/students/amcas/start.htm>) For non-AMCAS schools, write directly to each school by June requesting an application.
- I. Continue to be involved in extracurricular activities that will provide medically-related experience.

Senior year:

- A. Prepare for and attend interviews at medical schools.
- B. If you have not already done so, file applications through AMCAS (check individual schools for deadlines).
- C. File secondary applications as they arrive. Have references sent by CELS. Since most medical schools have rolling admissions, early completion of all your applications is advantageous. With timely completion of your application the first acceptance notices may arrive in November or December.

Medical School Admissions Requirements Handbook

Association of American Medical Colleges  
Attention: Membership and Publication Orders  
2450 N. Street, N.W.  
Washington, DC 20037-1126

Admissions Requirements of U.S. and Canadian Dental Schools

Publications Assistant  
American Association of Dental Schools  
1625 Massachusetts Avenue N.W.  
Washington, DC 20036-2212

(AMCAS) American Medical College Application Service

Association of American Medical Colleges  
Section for Student Services  
1776 Massachusetts Avenue, N.W., Suite 301  
Washington, DC 20036-1989

AACOMAS (American Association of Colleges of Osteopathic Medicine)

6110 Executive Boulevard, Suite 405  
Rockville, MD 20852-3991

AADSAS American Association of Dental Schools Application Service

1625 Massachusetts Avenue, N.W. Suite 101  
Washington, DC 20036-2212

MCAT Registration

American College Testing  
2255 North Dubuque Road  
P.O. Box 414  
Iowa City, IA 52243

Veterinary College Admission Test (VCAT)

Harcourt Brace Jovanovich, Inc.  
555 Academic Court  
San Antonio, TX 78204-2498