

CONNECTICUT COLLEGE

Preparation for Medical School

Health Professions Handbook



2015-2016
CONNECTICUT COLLEGE HEALTH PROFESSIONS HANDBOOK

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The Connecticut College Health Professions Handbook is available on line at: Connecticut College Health Professions Handbook: Preparing for Medical School

Health Professions Advisory Committee

The role of the Health Professions Advisory Committee is to guide, advise and evaluate students who are preparing for careers in the health professions, and provide the health professional schools with a Connecticut College PreHealth Committee letter of recommendation.

The Health Professions Advisory Committee consists of a Chair and faculty from the Biology, Botany, Chemistry and Physics Departments. Faculty from other departments and administrators may be appointed to the committee as vacancies occur.

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Committee Members 2015-2016

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If you are interested in a health profession and would like to learn about careers in medicine please contact:

Marylynn Fallon PreHealth Advisor/ Chair PreHealth Advisory Committee

Connecticut College Premedical Undergraduate Academic Program

The Medical Profession needs individuals from diverse educational backgrounds who will bring to the profession a variety of talents and interests.

All Medical schools recognize the importance of a broad education with a strong foundation in the natural sciences, highly developed communication skills and a solid background in social sciences and humanities.

The AAMC (American Association of American Medical Colleges) has developed a set of core competencies in order for the medical school admissions community to guide prospective students as they prepare for a career in medicine. The 15 Core Competencies for Entering Medical Students (defined below) have been endorsed by the AAMC Group on Student Affairs (GSA) Committee on Admissions (COA).

Core Competencies for Entering Medical Students

Interpersonal Competencies

Service Orientation: Demonstrates a desire to help others and sensitivity to others' needs and feelings; demonstrates a desire to alleviate others' distress; recognizes and acts on his/her responsibilities to society; locally, nationally, and globally.

Social Skills: Demonstrates an awareness of others' needs, goals, feelings, and the ways that social and behavioral cues affect peoples' interactions and behaviors; adjusts behaviors appropriately in response to these cues; treats others with respect.

Cultural Competence: Demonstrates knowledge of socio-cultural factors that affect interactions and behaviors; shows an appreciation and respect for multiple dimensions of diversity; recognizes and acts on the obligation to inform one's own judgment; engages diverse and competing perspectives as a resource for learning, citizenship, and work; recognizes and appropriately addresses bias in themselves and others; interacts effectively with people from diverse backgrounds.

Teamwork: Works collaboratively with others to achieve shared goals; shares information and knowledge with others and provides feedback; puts team goals ahead of individual goals.

Oral Communication: Effectively conveys information to others using spoken words and sentences; listens effectively; recognizes potential communication barriers and adjusts approach or clarifies information as needed.

Intrapersonal Competencies

Ethical Responsibility to Self and Others: Behaves in an honest and ethical manner; cultivates personal and academic integrity; adheres to ethical principles and follows rules and procedures; resists peer pressure to engage in unethical behavior and encourages others to behave in honest and ethical ways; develops and demonstrates ethical and moral reasoning.

Reliability and Dependability: Consistently fulfills obligations in a timely and satisfactory manner; takes responsibility for personal actions and performance.

Resilience and Adaptability: Demonstrates tolerance of stressful or changing environments or situations and adapts effectively to them; is persistent, even under difficult situations; recovers from setbacks.

Capacity for Improvement: Sets goals for continuous improvement and for learning new concepts and skills; engages in reflective practice for improvement; solicits and responds appropriately to feedback.

Thinking and Reasoning Competencies

Critical Thinking: Uses logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems.

Quantitative Reasoning: Applies quantitative reasoning and appropriate mathematics to describe or explain phenomena in the natural world.

Scientific Inquiry: Applies knowledge of the scientific process to integrate and synthesize information, solve problems and formulate research questions and hypotheses; is facile in the language of the sciences and uses it to participate in the discourse of science and explain how scientific knowledge is discovered and validated.

Written Communication: Effectively conveys information to others using written words and sentences.

Science Competencies

Living Systems: Applies knowledge and skill in the natural sciences to solve problems related to molecular and macro systems including biomolecules, molecules, cells, and organs.

Human Behavior: Applies knowledge of the self, others, and social systems to solve problems related to the psychological, socio-cultural, and biological factors that influence health and well-being.

Prerequisites Required by Most Medical Schools

The following subject areas and courses offered at Connecticut College are required as preparation for **most** medical schools: Individual school requirements can vary. Be sure to check the MSAR (Official Medical School Admissions Requirements Guide) *Medical School Admission Requirements*, You can purchase your own online access to the MSAR directly from AAMC at: www.aamc.org

ALL REQUIRE:

One year of Biology with Lab Two years of Chemistry with Lab One year of Physics with Lab One year of Mathematics One year of English

In addition to the above courses several medical schools also now require additional science courses and specific course work in Psychology, Biochemistry and Sociology. It is important early in your academic career to review the requirements of your state medical schools to determine their complete set of requirements. You must complete all required courses prior to matriculation.

*To prepare for the MCAT (Medical College Admissions Test) additional courses in Psychology, Sociology, Biochemistry and Statistics are **highly recommended**. Psychology 100, Sociology 102 or 103, Chemistry 303 OR 324 and any Statistics course is **highly** recommended. See page 4 of the Health Professions Handbook for further information.

One year of Biology

Biology 105 (The Organism) **AND** Biology 106 (The Cell) will complete the **one-year** requirement for Biology.

It is recommended (required by some) that you take additional Biology courses. Biology 208, Genetics, Biology 202, Human Physiology, Biology 309, Molecular Biology are good choices.

Two years of Chemistry

Chemistry 103 and 104 **OR** 107 and 202 (General Chemistry)

AND Chemistry 223 and 224 (Organic Chemistry) will complete the **two-year** requirement for Chemistry.

MOST STRONGLY RECOMMENDED: One semester of Biochemistry

As of this year (2015) 29 medical schools now require Biochemistry.

Following is a current list of schools requiring Biochemistry:

- •Geisel- Dartmouth
- Duke University
- Johns Hopkins
- •University of Nevada
- •New York Medical College
- Ohio State
- Oregon Health and Sciences

- •Texas Tech
- •UT-San Antonio
- •Univ of Utah
- Keck School of Medicine of the University of Southern California
- Univ of California, Irvine
- Florida State Univ College of Medicine

- University of Florida College of Medicine
- University of Hawaii at Manoa John A. Burns School of Medicine
- Univ of Michigan Medical School
- Mayo Medical School
- Univ of Minnesota Medical School
- Univ of Nebraska College of Medicine
- Yale University
- Univ of New Mexico School of Medicine

- Case Western Reserve School of Medicine
- University of Wisconsin School of Medicine
- Texas A&M
- Univ of Iowa
- Univ of Med/Dent of NJ- RWI
- SUNY Upstate
- LSU New Orleans
- Univ of Saskatchewan

Chemistry 324 (Biological Chemistry) **OR** Chemistry 303 and 304 (Biochemistry) will satisfy the Biochemistry requirement. Check the MSAR (Medical School Admissions Requirements Guide) *Medical School Admission Requirements*, to find out if you need one semester or two and lab or no lab. School requirements vary. You can purchase your own online access to the MSAR directly from AAMC at: www.aamc.org

Most Veterinary and Dental schools also require Biochemistry.

Go to: http://www.aavmc.org/ Veterinary school requirements and to http://www.ada.org for Dental School requirements.

One year of Physics

Physics 107 and 108 (General Physics) **OR** Physics 109 and 110 (General Physics/ Studio) (open only to First-Year Students) will complete the **one-year** requirement for Physics. Both Physics courses require Math 111 (A) (Calculus with Pre-calculus) (or a more advanced calculus course) as a prerequisite. It can be taken parallel.

One year of Mathematics

Only a small number of medical schools demand a specific course sequence in math. But all value mathematical competence, and many require or strongly recommend math courses. Increasing numbers of medical schools utilize computer theory and statistics.

Many schools specify Calculus I.

Math 111(A) (Calculus with Pre - Calculus) OR 112 (B) (Calculus I) will complete the Calculus requirement.

Choices for a second Math course include: Math 107 (Intro to Statistics) **OR** Math 206 (Intro to Statistics with Calculus) **OR** PSY 201 (Psychological Statistics) **OR** Math 113 (C) (Calculus II) **OR** Com 110 (Intro to Computer Science).

★Harvard Medical School, Johns Hopkins Medical School and Washington University Medical School require Calculus I (B) and II (C)

One year of English

Any courses offered by the English Department will satisfy one of the two semesters of English required. Some schools specify composition and literature.

Most medical schools accept our writing enhanced or writing intense courses as satisfying the second semester of English.

Osteopathic Medical Schools http://www.aacom.org/

Veterinary Schools http://www.aavmc.org/

Physician Assistant programs http://www.aapa.org/ require two semesters of English from the English Department. Most **DO NOT** accept WI/WE courses.

*** This sheet is for general informational purposes only. It is your obligation to check the websites of each medical school for current requirements. Main Source: AAMC Medical School Admission Requirements (MSAR)

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 at your home institution. Requirements taken in summer session, at junior colleges or through long-distance or computer on-line learning programs are seen as less competitive. All of these courses should be completed before taking the Medical College Admission Test and applying to medical school.

Veterinary schools may require additional courses (e.g. statistics, microbiology, biochemistry, and genetics depending on the particular school) and requirements for other health professions may vary. For requirements of other health professions refer to **Professional School Requirements** in the Health Professions Handbook.

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.	1 st year	Fall Biology 106 Chemistry 103 or 107	Spring Biology 105 Chemistry 104 or 202
	2 nd year	Chemistry 223 Mathematics 111 (A) or 112(B)	Chemistry 224
			Mathematics 107 or 113 (C) or PSY. 201 or Com 110
	3 rd year	Physics 107	Physics 108

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, and biology 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.	1 st year	Fall Chemistry 103 or 107 Mathematics 111or 112	Spring Chemistry 104 or 202 Mathematics 107 or 113 or 206 or PSY.201 or Com 110
	2 nd year	Biology 106 Chemistry 223	Biology 105 Chemistry 224
	3 rd year	Physics 107	Physics 108
III.	1 st year	Mathematics 111or 112 Biology 106	Mathematics 107 or 113, or Psy. 201 Biology 105

	2 nd year	Chemistry 103 or 107 Physics 107	Chemistry 104 or 202 Physics 108
	3 rd year	Chemistry 223	Chemistry 224
IV.	1 st year	Fall Physics 107 or 109 Mathematics 111or 112	Spring Physics 108 or 110 Mathematics 107 or 113 or PSY. 201
	2 nd year	Chemistry 103 or 107 Biology 106	Chemistry 104 or 202 Biology 105
	3 rd 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 years.

General Information: Preparing for and Applying to Medical School

College Major

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. Therefore 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.

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 various hospitals and clinics in the area, shadow local physicians and participate in our student run EMS program. Positions available involve the Emergency Department research associate program, patient transportation, installing lifeline monitors in patient homes, working with the Oncology Team and providing information about the hospital to patients and their families. We also offer a Paramedic Internship Program. This program includes a weekly seminar taught by the paramedic staff first semester and four twelve- hour shifts on ambulance calls, in the ER and shadowing a hospitalist second semester.

There will be an information session early fall to learn more about these opportunities. If interested in community service contact the Volunteers for Community Service office at X 5058 for an interview.

Medical College Admissions Test (MCAT)

The Medical College Admission Test® (MCAT®) is a standardized, multiple-choice examination designed to assess the examinee's problem solving, critical thinking, and knowledge of science concepts and principles prerequisite to the study of medicine.

The test is required by all but two American Medical Schools (Johns Hopkins and University of Rochester do not). Subject areas covered on the MCAT include: Biological Sciences, Physical Sciences and Verbal Reasoning. Performance on the exam is rated on a scale of 1 (lowest) to 15 (highest) for each section. Scores are reported in Physical Sciences, Verbal Reasoning, and Biological Sciences. Many schools do not accept MCAT exam scores that are more than three years old.

NOTE: 2015 MCAT CHANGES

As of January 2015 the content of the MCAT has changed. The changes preserve what works about the current exam, eliminate what isn't working, and further enrich the MCAT exam by giving attention to the concepts tomorrow's doctors will need.

Natural sciences sections of MCAT 2015 reflect recent changes in medical education.

Addition of the social and behavioral sciences section, Psychological, Social and Biological Foundations of Behavior, recognizes the importance of socio-cultural and behavioral determinants of health and health outcomes.

And the new Critical Analysis and Reasoning Skills section reflects the fact that medical schools want well-rounded applicants from a variety of backgrounds.

To prepare for the new MCAT additional courses in Psychology, Sociology, Biochemistry and Statistics are recommended. They are **not yet** required by the Medical Schools. Download the 2015 MCAT guide for detailed information.

https://www.aamc.org/students/applying/mcat/mcat2015/

The MCAT 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, May, June or July of their junior year (preferred) or in August prior to the start of their senior year.

Taking the test in the spring 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 spring and early summer also allows for an earlier decision by the medical schools. Because medical school admission committees utilize a rolling admission 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.

To register and learn more about the MCAT go to: https://www.aamc.org/students/applying/mcat/. Connecticut College © 2007
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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 Stanley 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 or kaptest.com for further information. Tuition discounts are available at Kaplan for students who can demonstrate financial need.

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 (a list of member schools is included in the AMCAS registration packet). 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 Records and Registration 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 U.S. college sponsored a study abroad program, 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.

AMCAS registration is on line. To register go to: https://www.aamc.org/students/applying/amcas/

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.

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 whom 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 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 CELS (Career Enhancing Life Skills) Office. to http://www.conncoll.edu/life-after-cc/letters-of-recommendation/ CELS has standard recommendation forms that may be given to recommenders. Recommenders should fill them out and send them directly to Interfolio.

If the recommender prefers, he or she may type the letter on his or her own letterhead, but should also attach the Career Services 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.

Connecticut College Health Professions Advisory Committee Interview

During the year you intend to apply to medical, veterinary or dental school, you must 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. These interviews are conducted spring semester starting in February. 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 members can be used for an overall letter of recommendation, which the college provides to medical schools (most request or require such a letter). You must be interviewed by the committee to get a committee letter. The interview also provides the student with valuable practice for actual medical school interviews (the committee and Board members give feedback to students on their performance).

TO PREPARE FOR THE INTERVIEW:

- 1. Open a recommendation file with CELS (Career Enhancing Life Skills). Call the CELS Office x 2770. Go to http://www.conncoll.edu/life-after-cc/letters-of-recommendation/ to register with INTERFOLIO, our online credentials managing company.
- 2. File the following documents with the CELS office by February 15:
 - A minimum of three recommendations, two from science faculty, and one from a non-science faculty. It is recommended you submit more than three; these may come from employers and/or internship experiences.
 - (All original recommendations must be sent directly to the CELS office and they must be confidential. The office will upload them to your INTERFOLIO account.)

- Medical School personal statement for the AMCAS (American Medical College Application Service).
- An unofficial copy of your most recent transcript and resume.

All interviews are held in **OLIN 102** seminar room. They will be thirty minutes long. The committee consists of four science faculty and one non-science faculty. **Appropriate dress is required.**

For more information on obtaining letters of recommendation, writing a personal statement and the interview process, make an appointment to meet with Marylynn Fallon, Chair, PreHealth Advisory Committee (403 New London Hall, x2145) the semester prior to your scheduled interview.

Connecticut College Summary Letter of Recommendation

After the Health Professions Advisory Committee has interviewed you the Health Professions Advisor will write you a summary letter of recommendation. This will be sent to your INTERFOLIO account. It is your responsibility to request interfolio send your letters to selected schools.

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 AAMC Curriculum Directory and read the school catalog).

Medical School Personal Statement

The personal statement constitutes an important opportunity to present yourself in you 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. (5300 characters)

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

Virtually all medical schools prior to an offer of acceptance require an in-person interview. 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.

Four-Year Timetable for Medical School Application

Freshman Year:

A. Register with Pre-Health advisor (Mrs. Fallon, 403 New London Hall x-2145).

Subscribe to the PREHEALTH LIST-SERV at

:https://groups.google.com/a/conncoll.edu/forum/?fromgroups#!forum/prehealth

- B. Begin premedical courses: consult with your academic advisor. It is recommended you begin with Biology 105 and 106 and Chemistry 103 and 104. Use the peer mentoring program to help you learn how to be successful in Freshman Biology and Chemistry.
- C. If you are an underrepresented minority, visit the AAMC (Association of American Medical Colleges) Minorities in Medicine web site.

https://www.aamc.org/students/minorities/med-mar/

This will give you valuable information and opportunities to enhance your chances for a career in medicine.

- D. Attend all pre-health orientations and workshops.
- E. Choose extracurricular activities that will provide medically related experience. Visit the Volunteer for Community Service office in the College Center to learn about medically related volunteer opportunities. Contact the AmeriCorps*Vista Pre-Health Coordinator x 2456
- F. Prepare tentative schedule for required premedical courses throughout the next four years.
- G. Continually assess your motivation for a career in medicine.

Sophomore Year:

- A. Gather information for application to the SMDEP (Summer Medical and Dental Education Program) **Visit SMDEP.org**
 - This is a Minority Medical Education Program established to increase the number of highly qualified medical school applicants from minority groups that were underrepresented in medicine. It is a free (full tuition, housing, and meals) six-week summer medical and dental school preparatory program that offers eligible students intensive and personalized medical and dental school preparation. Most programs require this to be done between your sophomore and junior year. Application deadlines are March 1.
- B. Continue to take premedical courses.
- C. Meet with your advisor if you did not do well your freshman year. Discuss some options (i.e. summer school, meeting regularly with a tutor. Transition from high school to college can be tough; this does not mean you cannot become a physician!)
- D. Continue to gain medically related volunteer experience.
- E. 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.
- F. 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.
- G. Consider participating in research (with a faculty member or outside campus).

Junior Year:

How are you doing? Take an honest look at your GPA Did you have to drop a course? Are you falling behind schedule? Can you say you are prepared to take and do well on the MCAT? This is the time to think about a Post baccalaureate Program. Go to: http://services.aamc.org/postbac/ for more information.

In an effort in recent years to increase the number of underrepresented minorities pursuing the medical profession the federal government and the AAMC have developed Postbac programs to work with minority students after their college graduation to enhance their application and make them competitive for admission. Research the programs for groups underrepresented in medicine and economically and educationally disadvantaged students on the AAMC web site http://services.aamc.org/postbac/

- A. Complete premedical required course if you are planning to enter medical school in the fall following graduation. Physics 107 and 108 and Chemistry 223 and 224, Biochemistry, Psychology, Sociology, Statistics. One year of English.
- B. Purchase a <u>Medical School Admissions Requirement</u> handbook (published by the Association of American Medical Colleges). Available online at http://www.aamc.org
- C. 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.
- D. Request academic recommendations. Most medical schools require two recommendations from science faculty and one from non-science faculty.
- E. In the fall set up a spring interview with the Health Professions Advisory Committee (See Mrs. Fallon 403 New London Hall).
- F. Write your personal statement. This will be required for inclusion in your medical school application and for your interview with the Health Professions Advisory Committee.
- G. Sign up for the Kaplan Educational Center prep course. The Kaplan course is conducted on the Connecticut College campus starting in January. Contact Kaplan at 1-800-kaptest or kaptest.com for further information. Tuition discounts are available at Kaplan for students who can demonstrate financial need.
- H. Prepare to take the MCAT's (Medical College Admission Test) Registration materials are available on line. https://www.aamc.org/students/applying/mcat/

If applying to Dental school, prepare to take the DAT (Dental Admissions Test) Go to http://www.ada.org/en/education-careers/dental-admission-test/ to register.

During the MCAT, students from racial and ethnic groups that are underrepresented in medicine or are economically disadvantaged may choose to take part in a self-identification registry, the Medical Minority Applicant Registry (Med-MAR). The free registry provides basic biographical information and MCAT scores for medical-school applicants from groups that are underrepresented in medicine or who are economically disadvantaged to all AAMC-member institutions. For more information go to: https://www.aamc.org/students/minorities/med-mar/

I. Open an AMCAS (American Medical College Application Service) file. The AMCAS applications opens early May. https://www.aamc.org/students/applying/amcas/

For non-AMCAS schools, write directly to each school by June requesting an application.

If applying to Texas Medical Schools go to the TMDSAS (Texas Medical and Dental Schools Application Service) web site www.utsystem.edu/tmdsas/

If applying to Osteopathic Medical Schools, open an AACOMAS (American Association of Colleges of Osteopathic Medicine Application Service) file. Go to: http://www.aacom.org

If applying to Dental school, open an AADSAS (Associated American Dental Schools Application Services) file. http://www.adea.org

If applying to Veterinary school, open a VMCAS (Veterinary Medical College Application Service) file at: http://www.aavmc.org/Students-Applicants-and-Advisors/Veterinary-Medical-College-Application-Service.aspx

J. Continue to be involved in extracurricular activities that will provide medically related experience.

Senior Year:

- A. Prepare to 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 Interfolio. 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.
- D. If you plan to apply to a Postbac program, check deadlines, most are February- March.

Health Professional School Requirements

Pre-dentistry (27 U.S schools)

1 Year Biology

1 Year Physics

2 Years of Chemistry, General and Organic

1 Year English

Refer to: http://www.adea.org/

Pre-medical Allopathic (127 U.S. schools) Osteopathic (28 U.S. schools)

1 Year Biology

1 Year Physics

2 Years of Chemistry, General and Organic

1 Semester Calculus

1 Semester Statistics

1 Year English

Refer to: http://www.aamc.org/ for Allopathic and http://www.aacom.org for Osteopathic schools

Pre-Veterinary

(Based on the requirements for College of Veterinary Medicine at Cornell University, tends to vary for each school, experience working with animals and the Veterinary Profession is essential in the selection process).

1Year Biology

1 Year Physics

2 Years of Chemistry, General and Organic

1 Semester of Microbiology with a lab

4 credits of Biochemistry;

1 Semester of Genetics

2 Semesters of English composition or 1 semester of composition and 1 semester of oral communication (will not accept writing enhanced/ writing intense courses from other departments)

1 Semester statistics

Calculus I

Refer to: (Association of American Veterinary Colleges) http://www.aavmc.org/

Nursing School Programs (most require you major in Biology or Chemistry)

Refer to: http://www.aacn.nche.edu/

Pre-Physical Therapy (general requirements, tends to vary for each school; most schools want volunteer or work related experience, 10-200 hours).

Biology: 3-5 courses with laboratory (to include general Biology (2), human or mammalian physiology (1) or anatomy and physiology (2), anatomy (1)

Physics: 2 courses with laboratory Chemistry: 2 course with laboratory

Psychology: 1-4 courses (to include general, developmental, abnormal)

Other: statistics and/or computer science Humanities and social sciences (5-10)

Refer to: http://www.apta.org/ProspectiveStudents/

Pre-Physician Assistant (minimum requirements, tends to vary for each school; most schools require health care experience, some up to 2000 hours).

- 1 Year Biology
- 1 semester Anatomy
- 1 semester Physiology
- 1 semester Microbiology
- 1 Year Humanities/Social science
- 1 Year of Gen. Chemistry
- 1 semester Organic Chemistry or Biochemistry
- 1 Semester Psychology
- 1 Year English
- 1 Semester Statistics or College Level Math

Refer to: http://www.aapa.org/ and http://www.paeaonline.org/

Pre-optometry

- 1 Year Biology
- 1 Year Physics
- 2 Years of Chemistry, General and Organic
- 1 Semester Calculus
- 1 Semester Statistics
- 1 Year English
- 1 Year Social Science
- 1 Semester Psychology

Refer to: http://www.opted.org

Pre-Podiatry (minimum requirements)

- 1 Year Biology
- 1 Year Physics
- 2 Years of Chemistry, General and Organic
- 1 Year English

Refer to: http://www.aacpm.org/

Pre-Chiropractic (based on the requirements for NY Chiropractic College, tends to vary for each school).

- 1 Year Biology
- 1 Semester of Psychology
- 1 Year Physics
- 6 credits of English/communications
- 2 Years of Chemistry, General and Organic
- 15 credits of Humanities/Social Science

Pre-Pharmacy (based on the requirements of SUNY-Buffalo, tends to vary for each school)

- 1 Year Biology
- 2 Semesters of Calculus
- 2 Years of Chemistry, General and Organic
- 1 semester of statistics Refer to:

http://www.aacp.org/resources/student/pages/schoollocator.aspx

Physician Assistant

A physician assistant (PA) is a medical professional who works as part of a team with a doctor. A PA is a graduate of an accredited PA educational program who is nationally certified and state-licensed to practice medicine with the **supervision of a physician**.

PAs perform physical examinations, diagnose and treat illnesses, order and interpret lab tests, perform procedures, assist in surgery, provide patient education and counseling and make rounds in hospitals and nursing homes. All 50 states and the District of Columbia allow PAs to **practice** and **prescribe** medications.

The PA educational program is modeled on the medical school curriculum, a combination of classroom and clinical instruction. The PA course of study is rigorous and intense. The average length of a PA education program is 27 months.

Admission to PA school is highly competitive. Applicants to PA programs must complete at least two years of college courses in basic science and behavioral science as prerequisites to PA school, analogous to premedical studies required of medical students.

Source: American Academy of Physician Assistants http://www.aapa.org/

Admission Requirements for entry into a Physician Assistant (PA) Program

There are 173 accredited Physician Assistant programs in the U.S. Entrance requirements vary from school to school and there is no specific major that is required. **Most** PA programs require the following courses:

Human Physiology (BIO. 202)

Human Anatomy (BIO. 102)

General Chemistry (CHEM 103 AND 104)

Microbiology (BIO. 330)

English (any English course offered from the English Dept)

Statistics (MATH 107 or PSY 201)

Two Psychology courses (PSY 100 and PSY 208)

Additional courses may be required by some PA Programs, these include:

Organic Chemistry (CHEM 223 and 224)

Biochemistry (CHEM 324)

Genetics (BIO 208)

★It is important that you consult the Central Application Service for Physician Assistants (CASPA) to get specific prerequisite information for individual programs. https://portal.caspaonline.org/applicants2011/faq/ins_programs.htm

Direct Patient Care Experience Requirement

Many PA programs require form 200 to 2,000 hours of direct patient care before applying for admission. Some schools do not require the experience but highly recommend it.

The following experiences may satisfy the direct patient care requirement for some programs:

CNA (Certified Nurse Assistant)

EMT (Emergency Medical Technician)

Phlebotomist

Paramedic

Physical Therapy

Physical Therapists (PTs) are health care professionals who diagnose and treat individuals of all ages, from newborns to the very oldest, who have medical problems or other health-related conditions that limit their abilities to move and perform functional activities in their daily lives. PTs examine each individual and develop a plan using treatment techniques to promote the ability to move, reduce pain, restore function, and prevent disability. In addition, PTs work with individuals to prevent the loss of mobility before it occurs by developing fitness- and wellness-oriented programs for healthier and more active lifestyles.

Physical therapists provide care for people in a variety of settings, including hospitals, private practices, outpatient clinics, home health agencies, schools, sports and fitness facilities, work settings, and nursing homes. State licensure is required in each state in which a physical therapist practices.

Source: Guide to Physical Therapist Practice, 2nd Edition (2003)

Admission Requirements for entry into a DPT (Doctor of Physical Therapy) Program

A bachelor's degree is required for DPT admission. While there is no specific undergraduate major required there are specific prerequisites courses that must be completed prior to submitting an application. The prerequisite courses for admission to a physical therapist program vary between academic programs and academic institutions. Based on a survey of academic programs, general prerequisites courses range for 6-17 courses with 11-12 courses being most common. General education courses required generally match the Connecticut College GE requirements. More than 50% of the physical therapist programs specifically require Anatomy and Physiology (minimum one course); chemistry (minimum one course); physics (two courses); statistics (one course); psychology; general biology (minimum one course), and an undergraduate degree. In addition, more that 75% of programs require a minimum GPA of 3.0.

Other courses that may be required less than 50% of the time by selected academic programs include English composition; social science; humanities; computers; medical terminology; exercise physiology; human development; kinesiology; organic chemistry; research methods; cell biology, and pathology.

For a comprehensive **course prerequisites summary** for all DPT programs go to: http://www.ptcas.org/ProgramPrereqs/

It is also recommended that you go to the <u>Directory of Accredited Physical Therapy Programs</u> to select the specific program(s) for which you are interested in applying. Information provided on this APTA website will identify the specific prerequisite courses and admission requirements required of each individual physical therapist program.

NURSING

Fact Sheet:

Accelerated Baccalaureate and Master's Degrees in Nursing

With the U.S. Department of Labor projecting the need for more than one million new and replacement registered nurses by 2020, nursing schools around the country are exploring creative ways to increase capacity and reach new student populations. One innovative approach to nursing education that is gaining momentum is the accelerated degree program for non-nursing graduates. Offered at the baccalaureate and master's degree levels, these programs build on previous learning experiences and provide a way for individuals with undergraduate degrees in other disciplines to transition into nursing.

Program Basics

- Accelerated baccalaureate programs offer the quickest route to licensure as a registered nurse (RN) for adults who have already completed a bachelor's or graduate degree in a non-nursing discipline.
- •Fast-track baccalaureate programs take between 11 and 18 months to complete, including prerequisites. Fast-track master's degree programs generally take about 3 years to complete.
- •Accelerated nursing programs are available in 43 states plus the District of Columbia and Guam. In 2011, there were 235 accelerated baccalaureate programs and 63 accelerated master's programs available at nursing schools nationwide. In addition, 33 new accelerated baccalaureate programs are in the planning stages, and 10 new accelerated master's programs are also taking shape. For a list of accelerated nursing programs see http://www.aacn.nche.edu/Education/pdf/APLIST.PDF.

(Source: American Association of Colleges of Nursing)

Prerequisites for Admission to Fast Track MSN (Master's of Science in Nursing) Programs for Non- Nursing College Graduates

Admission requirements vary widely from school to school and there is no specific major required. The following is a list of prerequisites required by the majority nursing programs.

PREREQUISITES:

The following prerequisites must be completed at an accredited college or university.

- General Chemistry I and II with Lab
- Anatomy and Physiology with Lab (2 courses)
- Microbiology with Lab (1 course)
- Nutrition
- Psychology (2 courses)
- Human Development
- Statistics (1 course that includes inferential statistics and hypothesis testing)
- -Bachelor of Science or Bachelor of Arts degree from an accredited college or university
- GPA of 3.0 or better
- Scores on the GRE (Graduate Record Exam) or MAT (Miller Analogy Test). Note: if

you have a Master's degree or higher, you are exempt from taking these tests.

- Three letters of recommendation
- Goal Statement regarding interest in nursing and future plans
- TOEFL scores for international students
- Experience with patient care, volunteer or paid, is recommended

Some Nursing schools require some Organic or Biochemistry, others only require General Chemistry

Accelerated Nursing Program Chem/ Biochem Prerequisites

- 1. Simmons Nursing: Required Gen chem 1&2, one semester Orgo
- 2. MGH Nursing: Required Gen chem 1&2, one semester Orgo
- 3. Curry Nursing: Required Gen Chem1&2 only
- 4. Elms Nursing: Required Gen Chem1&2 only
- 5. Mass College of Pharmacy Nursing: Required Gen Chem1&2 only
- 6. Regis Nursing: Required Gen Chem1&2 only
- 7. UMASS Nursing; NO Chem requirement
- 8. Univ of New England Nursing: Required Gen Chem1&2 only
- 9. Quinnipiac Nursing: NO Chem requirement
- 10. Northeastern Nursing: Required Gen Chem1&2 only

It is important that you consult the American Association of Colleges of Nursing (AACN) to get specific prerequisite information for individual programs at:

http://www.aacn.nche.edu/publications/issue-bulletin-accelerated-programs

Public Health

- **Public health is an exciting and growing field of study.** The field challenges its professionals to confront complex health issues, such as improving access to health care, controlling infectious disease, and reducing environmental hazards, violence, substance abuse, and injury.
- **Public health is a diverse and dynamic field.** Public Health professionals come from varying educational backgrounds and can specialize in an array of fields. A host of specialists, including teachers, journalists, researchers, administrators, environmentalists, demographers, social workers, laboratory scientists, and attorneys, work to protect the health of the public.
- **Public health is a field geared toward serving others.** Public health professionals serve local, national, and international communities. They are leaders who meet the many exciting challenges in protecting the public's health today and in the future.
- **Public health is a rewarding field.** The field of public health offers great personal fulfillment working towards improving people's health and well being is a rewarding day's work.

Who should consider a degree in public health?

Public health is a field that offers an abundance of job opportunities to suit a variety of interests and skills. Whether you are more interested in crunching numbers, conducting research, or working with people, there is a place for you in the field of public health. Recent college graduates and those that have been in the field for years have something to offer and to gain in this field. Public health is ideal for those that gain satisfaction knowing that they are working to improve the lives of others

How can a graduate degree in public health enhance my career opportunities?

Many public health jobs require a graduate degree in public health. A graduate degree gives public health professionals a competitive edge over other professionals and enables professionals to:

- gain knowledge of the factors which influence local, national and global legislative and social polices;
- apply broad-based, state-of-the-art quantitative and qualitative skills needed for problem solving;
- develop multidisciplinary and collaborative strategies for solving health-related problems;
- enhance communication skills by working with diverse populations; and,
- be positioned for a leadership role in health promotion and disease prevention.

What are the career opportunities in public health and what salary ranges can I expect after graduation?

While there are dozens of specialties in public health, most career opportunities are found in the following fields. The salary ranges, as follows, are the actual salaries earned (adjusted for inflation using the national CPI - Bureau of Labor Statistics) within one year of graduation as reported by the most recent nationwide survey of graduates conducted by ASPH:

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- Health Services Administration \$37,050 \$161,400
- **Biostatistics** \$33,000 \$63,000
- **Epidemiology** \$38,175 \$136,237
- Health Education/Behavioral Science \$33,000 \$86,625
- **Environmental Health** \$44,550 \$143,700
- International Health \$31,500 \$86,625
- **Nutrition** \$31,500 \$70,875
- Public Health Practice/Program Management \$41,175 \$102,000
- **Biomedical Laboratory** \$31,500 \$78,750

Where do public health professionals work?

Public health professionals work in both the public and private sectors. Many public health graduates will find work in the public sector in local, state, or federal health departments. The jobs available at health departments range from Food Safety Inspectors to Health Educators; from Policy Analysts to Epidemiologists. Other public health professionals will find work in university systems as researchers.

Those interested in working for a non-profit organization can find jobs in health advocacy, policy, or research for organizations such as the American Cancer Society, the Red Cross, or a local non-profit that focuses on specific health issues.

Still other public health professionals will find work in the private sector - working in randomized control trials for pharmaceutical companies or for health insurance companies.

Source: (Association of Schools of Public Health) http://www.whatispublichealth.org

Preparing for a Career in Public Health

Students who wish to pursue a Masters in Public Health upon completion of a bachelor's degree from Connecticut College have the opportunity to prepare by choosing courses and programs that will enhance their application.

The entrance requirements for MPH degrees differ by school and program area. Students of public health come from a variety of educational backgrounds and there is **no** specific major that is required for entrance into a Public Health graduate program. Any discipline can prepare a person for most public health studies but there is coursework that can better prepare you for the field of study you choose.

Participation in one of the following Campus Community Certificate Programs will provide varied experiences in community and global service.

Center for Community Action and Public Policy (Holleran CCAPP)

Goodwin-Niering Center for the Environment (GNCE)

Center for International Studies and the Liberal Arts (Toor Cummings CISLA)

The following is a suggested list of courses Connecticut College offers that may be of interest to those who are considering a career in public health.

interest to those who are considering a career in public health.		
Area of Interest	Conn Courses	
Epidemiology	All Math Classes	
Biostatistics	Statistics	
	n: 1 G	
	Biology Courses	
	ANT. 319 Medical	
	Anthropology	
	Computer Science Courses	
Health Education	All Education Courses	
	All Human Development Courses	
	HMD 406 Globalization	
	HMD 321 Multicultural Children and Families	
	HMD 304 Child and Family Policy	
	HMD 415 Social Policy Analysis in Urban America	
	CA 202 Public Policy and Social Ethics	
	SOC. 217 Health and Illness	
	SOC. 412 AIDS and Society	
	PSY. 208 Health Psychology	
	PSY. 311 Behavioral Economics	
	PSY. 493A The Psychology of Women's Health	
	PSY. 212 Drugs and Behavior	
	Phil 229 Bioethics	
	SOC. 262 Family Analysis and Life Styles	
	SOC. 215 Drugs and Society	
	SOC. 227 Deviant Behavior and Social Control	
	SOC. 405 Urban Poverty and Public Policy	
	SOC. 418 City and Society	

Health Services	ECO. 240 Health Economics	
Administration	ECO. 229 The Economics of Food; A Feminist Perspective	
	GOV. 235 Comparative Public Policy	
	ECO. 247 Urban and Regional Economics	
	ECO. 328 Public Finance	
	ECO. Economics and Morality	
	SOC. 217 Health and Illness	
	PSY. 309 Behavioral Medicine	
	PSY. 451 Geriatric Psychology	
International/Environmental	Environmental Studies Major	
Health	ES 263 Int'L Politics of Climate Change	
	ES. 258 US Environmental Policy and Politics	
	ES. 251 Environmental Activism and its Political Impact	
	Around the World	
	ES. 493 Indigenous People, Sustainable Development and Biodiversity	
	ES. 493 B Human Population Growth	
	ES 493 Water Quality, Pollutions Management	
	ES. 493A Law, Science and the Environment	
	ES. 493M Sustainable Agriculture	
	ES 493N Biofuels	
	ES 493U Environmental justice in Global Perspective	
	ECO 210 International Economics	
	ECO 307 Environmental Economics	
	ECO 404 Seminar in Environmental and Natural Resource Economics	
	GOV 113 International Politics	
	GOV 258 U.S. Environmental Policy and Politics	
	GOV. 260 Problems of Environmental Policy and Law	
Connecticut College @ 2007	GOV. 326 International Environmental Cooperation	

GOV. 493A Culture, Politics and the Environment ANT 307 Environmental Anthropology
ANT 319 Medical Anthropology
PHI. 228 Thinking Philosophically about the Environment ES 113 Energy and the Environment

Preparing for a Career in Veterinary Medicine

Veterinary schools are looking for a student with a passion for animal care and medical practices, strong grades and excellent GRE (Graduate Record Exam) scores.

To be a competitive candidate students our urged to gain a variety of experiences working with animals in veterinary clinics, shelters, research labs and hospital settings. To explore opportunities for animal related summer internships make an appointment with our Office of Career Enhancing Life Skills, called CELS. And make an appointment with the Health Professions Advisor Marylynn Fallon marylynn.fallon@conncoll.edu for animal care volunteer opportunities during the school year. To prepare for a veterinary medical education most veterinary schools require the following prerequisites:

1 year Biology (Bio. 105 Cells and Bio 106 Organisms satisfy this requirement)

- 1 year general Chemistry (Chem. 103 and 104 OR Chem. 107 and 202 satisfy this requirement)
- I year Organic Chemistry (Chem. 223 and 224 satisfy this requirement)
- 1 year Physics (Physics 107 and 108 (General Physics) **OR** Physics 109 and 110 (General Physics/ Studio) (open only to Freshman) will satisfy this requirement.)
- 1 semester Biochemistry (Chem. 324 Biological Chemistry or Chem. 303 Biochemistry will satisfy this requirement.)
- Genetics (Bio. 208)
- Microbiology (Bio. 330)
- 1 year English (Any courses offered by the English Department will satisfy the this requirement)
- 1 year Math (Calculus I and Statistics will satisfy this requirement (Math 111 (A) (Calculus with Pre-calculus) or 112 (B) (Calculus I) will complete the Calculus requirement. Math 107 (Intro to Statistics) **OR** Math 206 (Intro to Statistics with Calculus) **OR** PSY 201 (Psychological Statistics) will satisfy the statistics requirement.

Schools vary in their entrance requirements. To see a complete list of Veterinary school requirements go to Association of American Veterinary Medical Colleges (AAVMC) or check the Veterinary School Admissions Requirements book.

Application to most Veterinary schools are through a common application service called VMCAS. Go to Applying to Veterinary School (VMCAS) for more information.

Preparing for a Career in Dentistry

Dentistry is an exciting career and offers many unique opportunities to treat and engage with patients. Review the information here to learn more how to plan your Connecticut College undergraduate program to prepare for Dental School.

Here are some other things you may want to consider as you prepare for dental school:

- Confirm your passion for the profession.
- Do your homework. Research the profession, research various schools, etc.
- Understand the academic requirements for applying and acceptance.
- Develop a plan for shadowing.
- · Review and consider other health professions.

College Major

Many students interested in going to dental school are under the impression that they have to major in biology or some branch of science to be accepted to dental school. This is an incorrect assumption. A specific undergraduate major is not required for acceptance to dental school; however, a good foundation in the sciences is required.

PREREQUISITES

- 1 year Biology (Bio. 105 Cells and Bio 106 Organisms satisfy this requirement)
- 1 year general Chemistry (Chem. 103 and 104 OR Chem. 107 and 202 satisfy this requirement)
- I year Organic Chemistry (Chem. 223 and 224 satisfy this requirement)
- 1 year Physics (Physics 107 and 108 (General Physics) **OR** Physics 109 and 110 (General Physics/ Studio) (open only to Freshman) will satisfy this requirement.)
- 1 semester Biochemistry (Chem. 324 Biological Chemistry or Chem. 303 Biochemistry will satisfy this requirement.)
- Genetics (Bio. 208)
- Microbiology (Bio. 330)
- 1 year English (Any courses offered by the English Department will satisfy the this requirement)
- 1 year Math (Calculus I and Statistics will satisfy this requirement (Math 111 (A) (Calculus with Pre-calculus) or 112 (B) (Calculus I) will complete the Calculus requirement. Math 107 (Intro to Statistics) **OR** Math 206 (Intro to Statistics with Calculus) **OR** PSY 201 (Psychological Statistics) will satisfy the statistics requirement.

School requirements vary. Some dental schools require additional courses, such as anatomy and physiology. Many schools strongly encourage applicants to take courses in the arts and social sciences. Go to http://www.ada.org/en/education-careers/dental-schools-and-programs/ for more info.

Resources and Research Opportunities

Your main guide to the medical school application process is *Medical School Admissions Requirements*, MSAR published by the Association of American Medical Colleges.. An online subscription is available on line at http://www.aamc.org.

For Osteopathic Medical School information order or review on line AACOM's Osteopathic Medical College Information Book at http://www.aacom.org

For Veterinary School information order or review on line *Veterinary Medical School Admission Requirements* published by the Association of American Veterinary Medical Colleges. It is available in our bookstore or go to: http://www.aavmc.org/Students-Applicants-and-Advisors/Pre-Vet-Student-Resources.aspx

For Dental School information the *ADEA Official Guide to Dental Schools* is available at our bookstore or can be ordered through www.adea.org

GO to www.aspiringdocs.org for a comprehensive guide to the Medical School application process.

RESEARCH OPPORTUNITIES AT Connecticut College

Biology Department

Mary and Richard Scott Foundation Internship in Biomedical Sciences is 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 the Department Chair.

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 and Environmental Studies), Chemistry (including Biochemistry), Physics and Mathematics. Students at any level may apply; however, preference will be given to sophomore 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, 310B New London Hall. For further information and complete instructions, please contact Professor Owen.

Chemistry Department

Pfizer Central Research

Pfizer Central Research offers a winter internship in Pharmaceutical Chemistry 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.