**General Information for Premedical Students:**

Many students interested in pursuing a career in medicine believe they must major in biology to gain acceptance into medical school. While many individuals applying to medical school are biology majors, this is not the only (or even preferred) degree plan accepted by medical schools across the nation. The prerequisite courses required by the majority of medical schools are:

- General Biology I and II (BIOL196/196L, BIOL 197/197L)
- General Chemistry I and II (CHEM 121/121L, CHEM 122/122L)
- General Physics I and II (PHYS 151/151L, PHYS 152, 152L)
- Organic Chemistry I and II (CHEM 241/241L, CHEM 242/242L)
- Calculus I (MATH 181)
- Six Credit Hours of English

Although the curriculum listed above is adequate for many medical schools, there is some variation from school to school. The University of Nevada School of Medicine, for example, requires four additional hours of biological science beyond General Biology and six credit hours of behavioral science. As long as the prerequisite courses required by the medical school of interest and accompanying laboratories are completed prior to matriculation to medical school, any degree plan is acceptable by most medical schools. **IT SHOULD BE NOTED THAT INFORMATION FOUND AT THIS WEB SITE IS ONLY INTENDED TO PROVIDE GENERAL GUIDELINES FOR ADMISSION AND IT IS THE STUDENT’S RESPONSIBILITY TO ATTAIN SPECIFIC INFORMATION CONCERNING COURSE WORK REQUIRED BY SPECIFIC MEDICAL SCHOOLS.** Information concerning specific prerequisites for many schools can be found at http://services.aamc.org/memberlistings/index.cfm?fuseaction=home.search&search_type=MS&wildcard_criteria=&state_criteria=CNT%3AUSA&image=Search

While the above courses satisfy the minimum requirements, most medical schools recommend additional courses beyond the prerequisites. These include Genetics, Microbiology, Molecular Biology, Immunology, Biochemistry, and Physiology. While the minimum prerequisite coursework adequately prepares the student for the chemistry and physics portion of the MCAT, it does not provide an adequate biology background for most students. As such, many students that only satisfy the minimum prerequisites often score poorly on this standardized test. Additionally, the pace and volume of material covered in medical school are so high that students who have not seen the material before are often overwhelmed and struggle in medical school. So now it becomes clear why the majority of premedical students major in biology; preparation for the MCAT and medical school necessitates enrolling in multiple courses required for the biology major.

While majoring in biology greatly simplifies a college student’s life, medical schools sometimes prefer to consider students from non-science backgrounds. As such it has become increasingly common for premedical students to double major (biology/humanities) or simply major in humanities and attain a minor in biology. While this route is more ambitious and will require much more effort, it can make the student more appealing to medical schools, provided the student attains an adequate MCAT score and grade point average.
Regardless of degree plan pursued or other extenuating circumstances, admission to medical school has become increasingly competitive. The national average MCAT score accepted is currently \textbf{30} while the national grade-point-average is \textbf{3.6}. A common misconception held by many premedical students is that a low performance on either can be offset by community service or having been employed while in college. The reality of the situation is that all students accepted to medical school have performed substantial community service and many of them also worked through college. As such, neither circumstance constitutes a mitigating factor for either a low grade-point average or a low MCAT. Therefore, it is imperative that students interested in medical school strive to excel academically while in college.

**General Information for Osteopathic Medical School:**

What is osteopathic medicine? The term osteopathic medicine entails a fundamental difference in medical philosophy compared to the more widely known allopathic medicine. Osteopathic physicians concern themselves with whole patient treatment in an effort to treat the underlying cause of the symptoms as opposed to simply treating the symptoms themselves. They believe that an intimate relationship exists between the structure of the body and physical well being. This philosophy promotes that correcting problems with the body's structure can allow it's natural healing capacity to be realized. As such, osteopathic physicians concern themselves with adjustments of the musculo-skeletal system to promote the natural healing process. For more detailed information, visit the American Osteopathic Association web site located at \url{http://www.osteopathic.org/}.

The primary reason this web site contains this information is to inform students that there is a fundamental difference in philosophy between allopathic versus osteopathic medicine. Physicians trained in either genre are fully qualified to enter any field of medicine. Osteopathic physicians tend to gravitate towards specialization in family practice, pediatrics, and general internal medicine. This phenomenon is not due to any restrictions, but rather reflects the difference in ideology between allopathic and osteopathic physicians. In other words, students should evaluate their specific ideologies to determine if he or she should pursue an osteopathic versus allopathic school of medicine.

While the ideologies differ substantially, substantial similarities exist as far as prerequisite course work goes. In fact, recommendations for preparation for osteopathic medical school are essentially identical for recommendations for preparation for allopathic medical school. The only significant difference is the application service used to apply to participating programs. Osteopathic medical schools use the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS) located at \url{https://aacomas.aacom.org/}. Students interested in pursuing osteopathic medical school should consult the links for getting ready for medical school available at this site. Consult the American Association of Colleges of Osteopathic Medicine (AACOM - \url{http://www.aacom.org}) when researching specific prerequisites for osteopathic programs.
Getting Ready to Apply to Medical School:

Many students do not realize that there is much more to applying to medical school than completing coursework and taking the MCAT. There are many additional requirements that must be completed prior to applying to medical school. Additional requirements include:

- Community service
- Clinical experience
- Three letters of reference
- Research experience, beneficial but not required

It should be noted that the student should take MCAT during the spring semester (April) of the junior year. This is essential to ensure timely completion of the application process. Upon completion of the MCAT, the student should start the application process by completing the American Medical College Application Service (AMCAS) application form. Links to register for and complete this application are found at [http://www.aamc.org/students/amcas/start.htm](http://www.aamc.org/students/amcas/start.htm). If the student intends to pursue osteopathic medical school, the corresponding application service is the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS) and is located at [https://aacomas.aacom.org/](https://aacomas.aacom.org/). In addition to completion of the common application form, most medical schools also have secondary applications that must be completed. Following an initial screening process, most medical schools will send secondary applications to qualified students along with instructions for completion. Again this is variable between medical schools and it is the STUDENT’S RESPONSIBILITY TO OBTAIN AND COMPLETE ALL SECONDARY APPLICATIONS REQUIRED. Official transcripts must be sent to AMCAS. Applications are not complete without official transcripts from ALL COLLEGES OR UNIVERSITIES ATTENDED.

The student should submit letters of reference, a resume summarizing your community service and research experience, and a personal statement to the pre-health committee no later than June 1 during the junior year at which time an interview with the committee should be scheduled. This is necessary to ensure that the pre-health committee has ample time to prepare and submit their evaluation to the medical school(s) the student is applying to. In the event that the student’s university does not have a pre-health committee, the three letters of recommendation may be submitted directly to the medical school(s) being pursued. It should be noted that most medical schools prefer an evaluation from the pre-health committee if available.

In the event that the student is granted one or more medical school interviews, it is important for the student to adequately prepare for the interview process. While part of the preparation involves the interview conducted by the pre-health committee (if available), there are additional resources that can greatly assist the student during preparation. Information concerning frequently asked questions during medical school interviews across the nation can be found at [http://www.studentdoctor.net](http://www.studentdoctor.net). Additional resources that can help prepare for interviews are found at [http://www.bestpremed.com](http://www.bestpremed.com). The ambitious student will consult these web sites throughout their undergraduate careers as they also contain useful information such as year by year national averages for applying verses accepted MCAT scores and GPA’s.
One further cautionary note; the deadline for completion of the application process is mid-November. It is highly unlikely that any student submitting an application will gain admission into medical school using this deadline as a guideline. Medical schools will have already conducted many interviews by this time and schools with rolling admissions will have already sent out acceptance letters. Applications for medical school should be completed during the summer before the senior year, preferably before the end of July. AMCAS and AACOMAS open in early May and evaluations begin in early June. It is highly advisable for students to complete their application as early as possible in order to maximize the probability of gaining admission to medical school.

Finally, most students interested in pursuing medical school are not aware of how much it will cost them just to apply. The registration fee for the MCAT alone is currently $200 and preparation courses for the MCAT cost approximately $1750. Following completion of the MCAT, you will encounter AMCAS/AACOMAS application fees and secondary application fees for many medical schools. The primary AMCAS/AACOMAS fee combined with the secondary medical school application fee brings the average cost of application to approximately $150 per school. Considering that most applicants pursue 8-10 medical schools, you should plan on spending at least $1500 if you do not plan on taking a prep course and $3250 if you plan to enroll in either the Princeton or Kaplan Review courses. Following the application process, you will encounter travel expenses for interviews. Depending on how many interviews you go on, you should plan on spending anywhere from $1500 to $3500 on airfare and possibly hotels. The bottom line is YOU WILL LIKELY SPEND AT LEAST $3800 JUST APPLYING TO MEDICAL SCHOOL. If you don’t have the money, you should get a part time job and start saving now!

We realize this is a great deal of information to process, so timelines for completion of all these requirements are provided below. The student should keep in mind that these are intended to be guidelines and it is the student’s responsibility to ensure completion of all requirements.

**Freshman Year:**

Although currently not required for admission, all prospective students should take either the SAT or ACT during the senior year of high school. This is important as the UNLV uses these scores to place students in the appropriate Math and English courses. In addition to the standardized test, prospective students should take the Chemistry placement test to determine if they are eligible to enroll in CHE121 (General Chemistry I). Information concerning when and where to take the Chemistry placement test can be found at [http://sciences.unlv.edu/Chemistry/policy.htm](http://sciences.unlv.edu/Chemistry/policy.htm). Information concerning taking the Biology placement test is obtained by visiting the Biology Department Office located in WHI 101.

Why take the placement test? Without taking these exams, the student cannot enroll in the General Biology, General Chemistry, or English courses required for admission to any professional school. Instead, the student will spend at least the first semester (if not the entire freshman year) simply satisfying prerequisite course work required to take the prerequisite course work that professional schools require. The end result of failing to take the placement
tests is usually the delay of acceptance to medical school by at least a year, unless the student compensates by either taking classes during the summer or having multiple semesters with exceptionally heavy course loads (19 credit hours or more).

Following completion of the placement tests, the student should begin working towards completing the general prerequisites required by the majority of the medical schools. Information concerning the general prerequisites can be found under the General Premedical Information heading of this web page. The student would also benefit from researching the specific prerequisites for specific programs. Information regarding specific prerequisites for many medical schools across the nation can be found at http://services.aamc.org/memberlistings/index.cfm?fuseaction=home_search&search_type=MS&wildcard_criteria=&state_criteria=CNT%3AUSA&image=Search for allopathic medical schools and at http://www.aacom.org/colleges/ for osteopathic medical schools.

Following completion of the freshman year, the student should plan to acquire the service experience required by medical schools. It is essential to obtain experience in the clinical environment. Volunteering in an emergency room or participation in shadowing programs offered by local hospitals will accomplish this. While clinical service is the most important, other social service is also viewed favorably by medical schools. Such services might include volunteering for your local Audubon Society, Meals on Wheels, or Habitat for Humanity. The goal is to not only show a commitment to medicine, but also to serving your community. Be sure to acquaint yourself with your supervisor, as you will likely request a letter of reference from him or her.

It is prudent for the student to begin gathering information on medical school reviews and the latest statistics concerning medical school admissions. This enables the student to make an informed decision concerning which schools to pursue when actually initiating the application process. The student will find information concerning these issues at http://www.aamc.org/data/facts/ and http://www.aacom.org/data/index.html.

Finally, SAVE MONEY FOR APPLICATION EXPENSES!

**Sophomore Year:**

The student should complete the majority of the general prerequisites by the end of the sophomore year. More specifically, the student should complete at least General Biology I and II and General Chemistry I and II. Completion of the general prerequisites is essential for proper preparation for the MCAT which is taken during the spring semester of the junior year. General Chemistry I and II are prerequisites for Organic Chemistry I and II. Organic chemistry comprises as significant proportion of the biological component of the MCAT. As such, it is imperative to finish Organic Chemistry I and II prior to taking this standardized test. The student cannot expect to accomplish this if General Chemistry I and II are not completed by the end of the sophomore year. Furthermore, while the general prerequisites adequately prepare the student for the physics and organic chemistry material on the examination, the biological component requires several courses beyond the general prerequisites to ensure proper preparation for the MCAT. Ideally, the student will complete General Biology I and II no later than the fall
semester of the sophomore year in order to allow as much time as possible to take additional coursework that is germane to the MCAT. In the best case scenario, the student should at least enroll in Microbiology (BIOL 351) by the spring semester of the sophomore year.

In addition to course work, the ambitious student will also investigate research possibilities with science faculty at UNLV. Although it is not required, medical schools generally look favorably upon research experience. The primary reason for this is research allows one to gain a deeper knowledge and appreciation of science. Furthermore, conducting research as an undergraduate affords you the opportunity to acquaint the student with a faculty member. Assuming the student makes a favorable impression, this allows the student to approach the professor when securing letters of recommendation required for application to medical school. Finally, conducting research indicates that the student possesses well-developed social skills, particularly if the student presents the data at any kind of a scientific conference. Presentation of data demonstrates the ability to communicate orally and effectively interact with people in a professional environment, two essential qualities in terms of executing duties as a physician. Finally, the student should continue to investigate specific prerequisites for medical schools of interest by using the links available at http://services.aamc.org/memberlistings/index.cfm?fuseaction=home.search&search_type=MS& wildcard_criteria=&state_criteria=CNT%3AUSA&image=Search for allopathic medical schools and http://www.aacom.org/colleges/ for osteopathic medical schools.

Following completion of the sophomore year, the student should acquire additional service experience primarily at local hospitals/clinics but also with local service organizations (Meals on Wheels, Habitat for Humanity, Audubon Society, etc.). During this service, it is essential for the student to familiarize oneself with the intimate details of the clinical service. For example, if the clinical experience entails obtaining and filing insurance information for a local clinic, it is advisable for the student to acquire information on how the insurance industry works as applicable to health care. Questions concerning such knowledge may arise during medical school interviews or interviews with the pre-health committee. Make sure to acquaint yourself with supervisor for your summer volunteer work as you will likely request a letter of reference from him or her.

Finally, SAVE MONEY FOR APPLICATION EXPENSES!

**Junior Year:**

You should complete all general prerequisites during this year. Hopefully, all the biology prerequisites are already satisfied and the student can pursue additional course work that will be beneficial for preparation for the MCAT. Such courses include Genetics, Microbiology, Molecular Biology, Physiology, Immunology and Biochemistry. If you have not conducted research, now is a good time to do so. As stated before, many medical schools view such experience favorably and it affords the opportunity to acquaint the student with a faculty member who may provide a letter of recommendation.

The student should take the MCAT no later than the end of June following the spring semester. Many students benefit from one of the preparation courses offered by either Kaplan or the
Princeton Review. The student will find links to both services at the bottom of this header. The American Medical College Application Service (AMCAS) and the Association of American Colleges of Osteopathic Medicine Application Service (AACOMAS) open in early May and evaluations begin on June 1. The organized student will begin the application process as early as possible (May 1). The first step is registering with AMCAS and/or AACOMAS. Links to register for and complete these applications are included at the bottom of this header. In addition to completion of the common application form, most medical schools also require completion of a secondary application. Following an initial screening process, most medical schools send secondary applications to qualified students along with instructions for completion. The student should note that this process would not begin until the primary application is complete. The primary application process is not complete until the student submits official transcripts from all universities attended.

Most medical schools prefer a composite evaluation from a Preprofessional Evaluation Committee. As such, obtaining this evaluation constitutes a requirement for completion of the medical school application. Obtaining the evaluation from the pre-health committee is often the rate-limiting step for completion of the application. The student will minimize any delays by scheduling an interview with the pre-health committee as early as possible. To accomplish this, the student requires four components: three letters of recommendation, a personal statement indicating the student’s motivation and intent, a list of medical schools the student intends to apply to, and a resume summarizing all relevant work and volunteer experience. Once assembled, the student should submit these items to the pre-health committee and schedule an interview. The pre-health committee will prepare and submit the evaluation based on the packet and the interview. The sooner this interview is scheduled, the sooner the student's application is complete. The ambitious student will schedule an interview as soon as the MCAT score is available. This requires the student to have the letters of recommendation, personal statement, list of medical schools, and resume by mid-May of the junior year.

During the summer following your junior year, it is advisable to participate in a summer undergraduate research fellowship program. Medical schools and research programs across the nation offer these fellowships. These fellowships are competitive and the student should complete the applications by the end of the fall semester of the junior year. The application usually requires at least two letters of reference in addition to a standard application form for each program pursued. Since these are merit awards, participation in such programs is very prestigious and will dramatically bolster your application to medical school.

Information for the Kaplan Review is found at http://www.kaptest.com
Information for the Princeton Review is found at http://www.princetonreview.com
Link to register for MCAT: http://www.aamc.org/mcat
Links to allopathic medical school web pages: http://services.aamc.org/memberlistings/index.cfm?fuseaction=home.search&search_type=MS& wildcard_criteria=&state_criteria=CNT%3AUSA&image=Search
Link to the American Medical College Application Service: http://www.aamc.org/audienceamcas.htm
Links to osteopathic medical school web pages: http://www.aacom.org/colleges/
Senior Year:

Medical schools typically schedule interviews during the fall semester of the senior year. Therefore, a light course schedule for this semester is appropriate. In the event that the student is granted one or more medical school interviews, it is important for the student to adequately prepare for the interview process. While part of the preparation involves the interview conducted by the pre-health committee (if available), additional resources are available to the student that can greatly assist the student during preparation. The student will find information concerning frequently asked questions during medical school interviews at http://www.studentdoctor.net. Information found at http://www.bestpremed.com will also assist the student in preparation for medical school interviews. The ambitious student will consult these web sites throughout their undergraduate careers as they also contain useful information such as year by year national averages for applying verses accepted MCAT scores and GPA’s.

Concerning the spring semester of the senior year, plan to enroll in courses that would best prepare the student for success in medical school. If such course work were complete, now would be a good time to take courses for personal enrichment. Plan to relax during the summer, it may be the last time you get to do so for quite some time!