Advising for Pre-Dental Students at UM-Flint

Biology Department – updated 03/28/14

To set up an advising appointment with one of our pre-dental faculty advisors, please contact the biology department (762-3360)

Most pre-dental students choose biology or chemistry as a major; however, any major is possible so long as you complete all the prerequisite courses for dental school. If you have not done so already, you should check out the admissions requirements of the dental schools to which you are interested in applying. There are two dental schools in Michigan, UM-Ann Arbor Dental School and Detroit Mercy Dental School. I believe both programs think highly of our graduates. In recent years, both schools have shown a preference for applicants who have worked in the dental field as a dental assistant, office assistant, dental hygienist or dental lab technician. Such experience is not essential, but I believe it helps make your overall application more competitive. You certainly should plan some job shadowing and try to get a dentist to know you well enough to write you a letter of recommendation.

If getting a job in a dental office is difficult to work out, I recommend that you offer to work as an unpaid intern either in a dental office or a dental lab. That experience alone might be sufficient to give you an advantage in dental school admission, and it could lead to a paid position as well.

One of our previous pre-dental students, Marvin Jabero, currently is an oral surgeon. He is a UM dental school graduate and has agreed to be a resource person for UM-Flint pre-dental students. His e-mail address is Mjabero@gmail.com. His main office is Waterford (http://www.ofsmi.com/waterford-mi-oral-surgeon/oral-surgeon-dr-jabero.html), but his group practice also has offices in Brighton and Hartland.

You may be aware that some dental schools admit applicants without a Bachelor's degree; although the vast majority of applicants do have their Bachelor's degree when they enter dental school. If by chance you were admitted dental school without a Bachelor's degree, UM-Flint has a program that would allow you to complete your Bachelor's degree by using your first-year dental courses to substitute for biology elective courses (if you are a biology major). The key to this plan (i.e. completion of a "post professional Bachelor's degree") is to make sure you have all of your general education coursework completed prior to entering dental school.

Another thing that many dental schools have added to their mission statements (including Ann Arbor) is to "serve the underserved." I recommend that you check out the website of the Michigan Dental Association and their Oral Health Education tab for ways to get involved in dental outreach programs. Also, joining the pre-dental club is a really good way to get peer advice about valuable community service activities.

You should also know that performance on the Dental Admission Test (DAT) is an important factor in dental school admission. Most students take the DAT in the spring or summer after their junior year. You should research the DAT online and get experience with practice exams. The content of the DAT covers four areas as described in the following excerpt from the American Dental Association website (http://www.ada.org/sections/educationAndCareers/pdfs/info_dat_practice_test.pdf).

> The **Survey of the Natural Sciences** is a test of achievement. The content is limited to those areas covered by an entire first-year course in biology, general chemistry, and organic chemistry. The examination is comprised of 100 items: 40 biology items, 30 general chemistry items, and 30 organic chemistry items. Since separate sub-scores will be given for each of the three science sections, you should pace yourself through each section. A periodic table will be available for this test by clicking an Exhibit button.
>
> The **Perceptual Ability Test** includes various types of nonverbal visual acuity items. There are six sections in the Perceptual Ability Test. One section covers two-dimensional perception, while the other sections cover three-dimensional perception. It is important that you read and understand the instructions at the beginning of each section. You must pace yourself so that you complete all six sections of the Perceptual Ability Test within the given time frame. You are not permitted to use measuring devices (i.e., pencils, fingers, erasable note board) while taking the Perceptual Ability Test.
>
> The **Reading Comprehension Test** consists of three reading passages, each with 16 to 17 items. The reading passages are scientific in nature and may reflect topics covered in dental school. Applicants are encouraged to read each passage before attempting to answer the corresponding questions. The Reading Comprehension Test is presented in a split-screen format with the items presented on the upper half of the screen, and the reading passage presented in a scrollable format on the lower half of the screen.
>
> The **Quantitative Reasoning Test** measures your ability to reason with numbers, to manipulate numerical relationships, and deal intelligently with quantitative materials. For the DAT Practice Test, a calculator will not be present. However, a basic calculator will be available as a pop-up image on the screen for the Quantitative Reasoning Test section in the real DAT.

If you keep strong focus on developing the knowledge areas, skills and abilities necessary to succeed on the DAT, you can make the most of your undergraduate education. The first test area, Survey of the Natural Sciences, is the content knowledge area that represents material presented in BIO 111, BIO 113, the CHM 260 series and the CHM 330 series. Your goal through all of those classes should be to become "fluent" not merely by memorizing what must be memorized, but by understanding and being conversant in the material. To become conversant in the material, you need to make a concerted effort to talk about the material. Explaining what you learned in each class to someone (to anyone and preferably nearly every day) will have a big payoff over time. Study groups with fellow students probably is the best venue for discussing class material, but just the process of trying to explain class material even to someone who knows nothing about it will be very beneficial to you.

Making an effort to become conversant in the material covered in all of your classes also will prepare you for the Reading Comprehension part of the DAT. As it says above, that section of the DAT involves reading scientific narratives that may reflect topics covered in dental school. To be able to read these passages critically, you will need to take courses that teach you the language of medical/dental physiology. For this reason, we recommend that pre-dental students take BIO 167 and BIO 168 (Human Anatomy and Physiology I & II). Your upper-level biology courses also will give you opportunities to improve your reading comprehension of scientific material as presented in textbooks as well as in scientific research articles.

If you are truly serious about pursuing a dental career, part of your extracurricular readings should be about the dental profession and include reading of dental research articles. One useful way to do the latter is to look up dental school faculty at different institutions to see what research they are pursuing. If the dental school website does not list research articles by their faculty, you can use Google Scholar to find articles published by various faculty members. Previous pre-dental students have done this and even gone so far as to email some of the dental school faculty to ask questions about the articles. A dental school faculty member often will respond readily to such emails, because it is about *their* research. Developing an email relationship with dental school faculty members might help your application. At the least, you could do some name-dropping in your application essays (e.g. *"Part of my extracurricular preparation for dental school involved reading scientific literature of dentistry. Research articles on XXX particularly caught my interest and I had some very rewarding email discussions with Dr. XX at the UM dental school about this area and where the science is going next."*).

Preparation for the Perceptual Ability Test probably relies heavily on your extracurricular experiences; although, art or sculpture class might help as well. To prepare for this test, pretty much like all of the test areas, you need to work on it over time. Possibly you could spent time regularly carving wooden replicas of teeth (you can purchase dental models online for fairly reasonable prices). Another idea is to purchase an organic chemistry molecular model kit that will have the double benefit of helping you with a better 3D understanding of organic chemistry (i.e. stereochemistry).

Preparation for the Quantitative Reasoning Test means that you cannot let your math skill become rusty. Your science classes will give you opportunities to practice your math skills. However, some students choose to use short-term memory to get through the math in particular science courses. Instead, you should take every opportunity to improve your math ability. Your physics classes are a good place to give your general math skills a workout especially with respect to your ability to solve math word problems. Dental students often put off taking physics until their senior year, because physics is not a content area of the DAT exam. However, taking physics before the DAT should improve performance on the Quantitative Reasoning Test as well as help you avoid the problem of taking physics in your senior year when your math skill might be very rusty. In addition to math classes, a course in logic (PHL 202) can help improve your quantitative reasoning ability.