

Health professions advising Gateways guide for advisors

In recent years, about 30-40% of each incoming class has expressed interest in a health professional career – about 250-270 students in each class. The health professions advising office helps those interested in a career as a physician, dentist, or veterinarian; or an allied health career such as a physician assistant (PA), nurse practitioner (NP), physical therapist (PT), or other health care provider. We offer advising to help students make a plan to meet the requirements and complete applications for these programs. “Health professions advising” (formerly “premed”) is not a program, major, or concentration. When students indicate interest in health professions on the Gateways questionnaire, they are automatically registered with health professions advising to receive critical e-mails and other information. They can also register by contacting the office with their class year, student ID number and e-mail address. At this point there is no notation on any transcript or advising record. Note: the administrative assistant (Mickie Casello) has retired, her replacement is Robin Kirkorian (rkirkori@holycross.edu).

A student considering medical school has a very tight schedule. There are 15 courses suggested for medical school and MCAT preparation and 8 College requirements (including a second semester of Monserrat) that do not overlap with these requirements. This leaves 9 courses out of a typical 32 course load for majors, minors, concentrations, and exploration. Adding in study abroad/away, honors, etc. complicates things further. AP credit in some classes can make things easier. We can usually work out a way to make many options work, but students should be advised to be intentional about every course they choose: unfortunately there is not much wiggle room, and sometimes difficult decisions are required.

What should a student interested in a health profession take first?

- **Start with any of the sciences**

There is no single course sequence for a medical, dental or any other health professional graduate program. If a student is considering a science major, she or he should follow guidelines of that major. Otherwise he or she may want to start by taking Chem 181 *Atoms and Molecules*, Biol 161 *Introduction to Cellular and Molecular Biology*, or Phys 115 *Introductory Physics 1*. They should take chemistry in the first semester if they are considering studying abroad in the junior year or are planning on completing requirements in three years. Students should think carefully about doubling up on laboratory classes in the first year; this is recommended only for students with strong high school backgrounds (e.g. having taken an AP science course). It is easier for a student to accelerate coursework later than to dig out of an early hole. The lab sciences should be taken in sequence. Chem and bio allow a limited number of students to start the sequence in the spring, so a student may start with one lab in the fall and add another in the spring if the fall goes well.

- **Think about something other than natural or social science for Monserrat**

Students will be taking lots of natural and social science courses as they pursue the requirements for health professional graduate school. They should use the Monserrat experience to explore another area and meet a common area requirement – for example literature, history, religious studies, cross cultural, philosophy, or arts.

- **Consider many different majors**

There is no one best major for health professional graduate school. While requirements overlap the most with biology, chemistry and psychology, health professional graduate schools value students from all majors. We have had successful medical school applicants from essentially every major at the college. Students should find their passion, even if it is logistically challenging. Many working physicians (including Dr. Steven Stack '94, the current AMA president) urge undergraduates to major in something other than a science.

- **Think about mathematics choices**

Most health professional schools require a semester each of calculus and statistics. *Calculus 1* (or a 4 or 5 on the AB AP exam) is required for introductory physics and *Equilibrium and Reactivity* (typically the fourth chemistry course, but is sometimes taken second). However, many majors (economics, chemistry, physics, etc.) require *Calculus 2*. If a student had a successful year of high school calculus (grade above B or AP score of at least 3), the mathematics and computer science department usually considers the student ready for *Calculus 2* (Math 136), which alone meets medical and health professional school requirements for calculus. Students do not take statistics in their first year as many majors offer a statistics course.

- **Don't neglect the humanities and social sciences**

Most health professional graduate schools require social science and humanities courses. The MCAT includes extensive content on psychology and sociology. There are limited (maybe no!) seats in *Introduction to Psychology*

and *The Sociological Perspective* for third and fourth year students, so these should be taken early in a student's career. The new "critical analysis" section of the MCAT will also test the ability to read and understand passages on philosophy, ethics, humanities, and social sciences. While no specific courses are required to prepare for this section, exposure to these areas (in Montserrat or as common requirements are met) will be helpful. While *Introduction to Philosophy* is a popular (and wonderful) course for first year students to take, they should be encouraged to think about other courses they might take later to meet the philosophy requirement, like *Medical Ethics*, for example.

- **Advanced placement credit**

Most medical and health professional graduate schools will allow applicants to use AP credit (4 or 5) to fulfill requirements like calculus, English, statistics and psychology, but this is not universal. If a student is considering medical school, it is important for him or her to consider whether the AP class prepared him or her sufficiently to do well on the relevant sections of the MCAT. Many medical schools and many other health professional schools will not accept AP credit for core science courses in chemistry, biology or physics. Schools that do accept science AP courses usually require advanced electives in those disciplines to take the place of the AP course. However, experience in AP courses in these areas can prepare a student to take multiple laboratory courses in the first year. But, even students with a 4 or 5 on an AP science course are surprised by how challenging our courses are.

Resources

- **The Holy Cross health professions advising web page**

This valuable resource lists medical and other health professional school requirements, course plans, advice for students, useful links, and a description of the graduate school application process.
(<http://academics.holycross.edu/healthprofessions/>)

- **Advisors**

Any first-year student with questions may make an appointment to speak with Prof. Miles Cahill (health professions advisor) or Prof. Jumi Hayaki (associate health professions advisor) by contacting the office at x2533 or stopping by Stein 129A. However there is no need for all 260 (likely) incoming health professions students to meet with us!