

Pre-Professional Health Science

3500 Mountain Blvd., Oakland, CA 94619

ABOUT THE PROGRAMS

Preparation for a professional career in the health sciences begins with a bachelor's degree and the specific foundation courses required for admission to graduate schools in one of the various fields of health science. While a particular major is not required to enter the majority of graduate programs, the most common pre-health major is in the biological sciences. Students who major in the humanities or social sciences are also accepted into graduate professional schools, provided they have completed the specific course requirements for the school of their choice. Either way, the graduate professional schools generally desire a strong foundation in the humanities in addition to the usual preparation in the sciences.

Pre-health science students at Holy Names University are taught to possess strong, independent thinking, good judgment, and a motivation for lifelong learning—attributes that are crucial for successful health science careers. Regardless of their major, these students acquire a breadth of academic competence through the General Education requirements and prudent selection of electives. They also acquire depth of human understanding when studying the Integrative Studies Across Cultures program, a series of courses unique to the HNU curriculum. Writing, speaking, and analytical thought—keys to success in graduate school, passing board examinations, and competing professionally—are stressed throughout the entire course of study. In addition, the opportunity for development of these skills is significantly enhanced by small class sizes and a close interaction with professors.

CURRICULUM

Medicine

Historically, Holy Names University students intending to enter the medical fields have majored in Biological Science or Chemistry. However, medical schools give equal consideration to students with any major, as long as students have completed the prerequisite coursework. Thus, a student interested in medicine should consider personal interest, aptitude and alternative career goals when deciding upon a major field of undergraduate study.

Virtually all medical schools desire that students take the following coursework as undergraduates: the follwing year long sequences of general inorganic chemistry (CHEM 1A, 1B), organic chemistry (CHEM 18, 119 with labs), general biology (BIOL 1A, 1B including labs), general physics (PHYS 8A, 8B including labs), and English (ENGL 1A, 1B). Some schools also require one or two terms of calculus. This basic coursework should be completed by the end of the junior year so that the Medical College Admission Test (MCAT) may be taken then. It is advisable to take at least one or two upper division science courses as electives if a major other than science is chosen. Most medical schools require additional coursework in biochemistry, molecular biology, cell biology, psychology, writing classes, and/or foreign language, as well as internships or volunteer work in clinical settings. Students are encouraged to obtain copies of catalogs from prospective medical schools or to use the following

website http://www.aamc.org to determine specific requirements of the various graduate schools of medicine. All pre-medical students, regardless of academic major, should seek to discuss their program of studies with the advisor for Pre-Professional Health Science upon entrance to HNU and thereafter on a regular basis.

Dentistry

Most dental colleges review a prospective student's overall academic record for admissions, paying special attention to the student's performance in science courses. Therefore, the most advisable major is either Biological Science or a self-designed major in Chemistry/Biological Science. The general courses required are the same as for pre-medical students and should be completed prior to taking the Dental Admission Test (DAT examination) in the junior year. Pre-dental students should plan a course of study which matches the requirements of the preferred dental school. Entry requirement to graduate dental programs vary even more widely than medical schools, so close advising is very helpful. The following website for American Dental Education Association (www.adea.org.) may prove useful when looking for educational needs for entry into various dental schools.

Physical Therapy

Physical therapy candidates are strongly encouraged to major in Biological Science at Holy Names. The entrance requirements for physical therapy include inorganic and organic chemistry, general biology and general physics, as well as courses in human anatomy or comparative anatomy (with lab), human physiology, exercise physiology, and kinesiology.

Additional courses in physical education, immunology, psychology (human growth and development), sociology, and statistic may be needed depending upon the requirements of the Master's and Doctoral programs. Internship are highly advised. For further information contact the advisor of Pre-Professional Health Science.

Occupational Therapy

Occupational therapy is closely related to Physical Therapy in orientation. It differs in additional requirements in psychology and the arts. Most Masters' programs in OT require general biology, anatomy, physiology, immunology, psychology (including courses in human development and pathopychology) and sociology. For further information contact the advisor for Pre-Health Science in the Biological Science Department. When seeking graduate school the following website may be of asistance: www.allalliedhealthschools. com.

Pharmacy

Students wishing to enter the career of pharmacy should major in Biological Science or a self-designed major in Biological Science / Chemistry. They need coursework in statistics, microbiology, cell biology or immunology, biochemistry and physiological chemistry

For additional undergraduate coursework consult the websites of Medical Schools with Pharmaceutical Studies. In addition the website for the American Foundation for Pharmaceutical Education (AFPE) may be of interest (www.afpenet.org/programs.htm).

Veterinary Medicine

Biological Science and Chemistry are the traditional majors for pre-Vet-Med students. However, as with pre-med, any major is an option for a student desiring to become a veterinarian. The coursework requirements are identical to those for Pre-Medicine (see above under Medicine). Some schools have specific requirements for statistics, and developmental biology/embryology. Experience working with animals is a universal pre-requisite for admissions to veterinary programs. The majority of graduate schools require applicants to take the Graduate Record Examination (GRE). It is best to obtain a catalog from the prospective schools and complete the courses required for the school of choice. Information on schools and their requirements may also be obtained using the following webstite: www.veterinaryschools.com/dvm-schools-colleges-programs. html. Close contact with and advising from the advisor for Pre-Health Science in the Biological Science Department is strongly recommended for the entire undergraduate program.

Internships

Students wishing to pursue careers in any of the health sciences are encouraged to seek internships during their undergraduate years. With assistance from their HNU advisor, Pre-Med students find internships in clinics and hospitals. Pre-Vet students intern at local veterinary hospitals or animal shelters. Students interested in Physical or Occupational Therapy can gain hands-on experience though contact with the graduate program counselors at Samuel Merritt Hospital or with therapists at nearby hospitals and nursing home facilities.

Holy Names students have completed internships at a variety of locations, including:

- La Clinica de la Raza
- Alta Bates Hospital Physical Therapy Clinic
- Alta Bates Hospital Pharmacy
- Children's Hospital, Oakland
- Kaiser Permanente Hospital, Oakland and Hayward
- John Muir Hospital. Walnut Creek
- · American Cancer Society, Oakland

FACULTY

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ADMISSION CONTACT INFORMATION

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Scheduled visits to classes and appointments with faculty are encouraged and can be arranged through the Admission Office. For transfer students, reasonable consideration is given to equating previous coursework with Holy Names University requirements.