

# PRE-PROFESSIONAL PREPARATION (TRADITIONAL UNDERGRADUATE COLLEGE)

## Pre-Professional Preparation in the Natural and Health Sciences

Students desiring a major, pre-professional curriculum, or a constructed minor in one of the disciplines of natural and health sciences should consult with a representative of the appropriate department for advisement regarding minimal requirements for their objectives in that area of study. In addition, students must consult with a departmental representative before registering for an upper division laboratory science. Auditing laboratory science courses requires departmental approval.

## Teacher Education: Science, Physical Education or Mathematics

Students desiring to enter a career in secondary school teaching should consult with an academic advisor in Liberal Studies and the appropriate discipline department. The academic advisor will provide a complete list of the requirements for teacher certification in the student's selected field. Certain courses are required for teaching, and a wide spectrum of courses are necessary covering diverse areas within discipline(s) chosen.

## Graduate School Preparation

Students who desire to enter graduate school need to consult with their academic advisor for counsel regarding requirements and the proper sequence of courses. It is advisable for such students to obtain catalogs from graduate schools of their choice and consider carefully the undergraduate prerequisites listed in them. Most graduate schools require prospective students to take the Graduate Record Examination (GRE), which is normally taken in the Fall of the senior year or the Spring of the junior year. Some graduate schools require only the basic or generalized GRE while others require that applicants also take the advanced subject area exam. It is imperative that students be aware of the requirements and application deadlines of the graduate school of their choice.

## Pre-Health Professions Preparation

### Examples Of Health Professions

- **Chiropractic**
- **Dentistry**
- **Medicine**
- **Optometry**
- **Osteopathy**
- **Pharmacy**
- **Podiatry**
- **Veterinary Medicine**

An important component of the undergraduate curriculum is the preparation of students for medical and other health professional programs, e.g. medicine, dentistry, pharmacy, veterinary medicine, etc.

This preparation can include a major in the sciences as well as a major in other disciplines, e.g. psychology, history, English, etc. In fact, a "well rounded" education is viewed very favorably by many health professional school admissions committees. However, it must be recognized that majoring in a non-science discipline does require completing, and doing well, in the science courses that are pre-requisites for admissions to the health professional schools.

Generally, the requirements for these health professional schools include one-year lecture and laboratory in general chemistry, organic chemistry, physics, general biology and math (e.g. statistics, calculus). In addition, medical schools may require additional courses in embryology, genetics and biochemistry.

Other recommended courses include spanish, cellular and molecular biology, endocrinology, microbiology, immunology, genetics, developmental psychology, human or vertebrate physiology, human or comparative vertebrate anatomy.

Students who already have a bachelor's degree in an area other than the sciences may, of course, fulfill the minimum requirements for entrance into these health schools by completing the core requirements through a post-baccalaureate program or even a second bachelor's degree.

Recommended majors for pre-medical, pre-veterinary, or pre-dental training are either biology or chemistry since these major requirements and professional school requirements will overlap significantly.

Most medical and dental school applicants complete a baccalaureate degree program prior to beginning their medical training. Normally, the Medical College Admission Test (MCAT) or Dental Aptitude Test (DAT), or other tests required for entrance into professional graduate school is taken during the sixth semester of undergraduate work. The MCAT exam emphasizes critical thinking and writing skills, in addition to factual knowledge. The successful completion of our course program and the knowledge gained will be (1) decidedly helpful in achieving requisite MCAT and DAT scores, and (2) essential in providing an adequate background for medical and dental studies.

Health professions such as chiropractic, nursing, physical and occupational therapy, and physician assistant have fewer pre-requisites and do not require the MCAT or DAT but may have other entrance test requirements (GRE, TEAS). The Kinesiology department offers a Pre-Health Professions concentration that provides a core of courses and additional work specific for the specific career choice. Please see the relevant catalog section under the Kinesiology Department.

For additional preparatory information, the prospective applicant should consult the catalogs of the schools of interest. It is important also to work with the relevant department for assistance in planning the total program.

