
thesis may be waived for students who do senior theses, projects, recitals, etc., for their majors, with prior approval.

Students may substitute an internship in their major field or a Torrey off-site program for the thesis with prior approval. The internship must be approved by the Torrey Thesis Director and student's major advisor. All theses and internships should make a significant contribution to the student's major field of study.

YMDT 490 Selected Readings & Topics 1-4

Designed primarily for upper-division students in Torrey who want to study specialized topics not covered in catalog course offerings. May be taken up to three times with different readings. Admission is by approval of the Director.

YMDT 491 Independent Study 1-4

Independent readings on a topic chosen by the student. Offered both semesters. Admission is by approval of the Director.

YMDT 492 Torrey Off-Campus 1-4

Independent readings on a topic chosen by the professor. Offered usually in the summer. May be taken up to three times with different readings. May substitute for the Torrey Honors Thesis with approval. Admission is by approval of the Director.

Pre-Professional Programs

Many opportunities exist for Biola students who are actively seeking professional education and training. Several agreements currently exist (Chiropractic and Engineering) that allow Biola students to participate in degree completion programs leading to specialized bachelors degrees or both bachelor's degree and a first professional doctorate. Additional opportunities are available that prepare the Biola graduate to enter the professional education / training phase with confidence. A significant number of Biola graduates are currently serving in professional capacities. They routinely cite their excellent undergraduate education programs as predictors of success in their professional endeavors.

Students who are interested in pursuing professional degrees after attending Biola should plan carefully and consult with potential professional schools concerning their requirements. In some cases, assistance from a major adviser should be supplemented by other advising resources available at Biola. The Office of Career Services assists students in various ways. If a student is unsure about pre-professional advising, help should be sought from the Office of the Vice Provost for Undergraduate Education, located in Metzger Hall. The following provides some basic information about pre-professional education at Biola.

Pre-Medicine

Students who wish to pursue a career in medicine should plan to build a strong foundation in the sciences and mathematics. Courses in biology, chemistry and physics form the core of this preparation. While most students at Biola who are preparing to enter medical school major in biological science or biochemistry with a pre-med emphasis, other majors are possible if the student completes all of the core science courses required by the medical school.

Medical schools also expect a broad background in the liberal arts such as is provided by Biola's program in general education. In addition, Biola's biblical and theological studies requirement and its integration of a biblical perspective in all courses equips the prospective Christian health professional in mind and character to impact the world for Jesus Christ.

A Pre-Medical Advisory Committee helps prepare students for the rigorous process involved in applying to medical school. In particular, students are assisted in their preparation for medical school interviews. Information about the Pre-Medical Advisory Committee and Medical College Admission Test (MCAT) is available from the secretary in the Science Building. For further information, please consult with either the Department of Biological Science or the Department of Physical Science.

Pre-Dentistry

Preparation for entrance into dental school is similar to preparation for medical school. Students should contact the dental schools of their choice for specific entrance requirements. Information on the American Dental Association Dental Admission Test can be obtained from the secretary in the Science Building.

Pre-Chiropractic

Biola's Pre-Chiropractic Program is a 3 + 1½ cooperative degree completion program leading to a Bachelor of Science degree in Human Biology. The needs of society for health care practitioners are changing. Doctors of Chiropractic are providing legitimate, alternative treatment strategies to clients both directly and through HMO's. Chiropractic medicine has long been known to have a holistic emphasis. Biola provides a context in which to prepare a more thoroughly educated doctor of chiropractic whose faith is truly integrated with her or his profession.

This program is offered in cooperation with Southern California College of Health Sciences. Students attend Biola for three years taking courses in biology, chemistry, physics, biblical studies and the liberal arts. The upper division biology courses are taken while enrolled at Southern California College of Health Sciences (SCCHS) during the final year. Upon successful completion of the program, the student receives the B. S. degree from Biola. Upon successful completion of the entire chiropractic program and examinations the student would receive the Doctor of Chiropractic degree from SCCHS.

SCCHS is located just three miles from Biola, in Whittier, CA. It is a professional school, accredited by the Western Association of Schools and Colleges and the Council on Chiropractic Education.

Students interested in this program should major in human biology. Specific requirements for this program are listed under this heading in the Course Descriptions section of this Catalog. Further information may be obtained from the Department of Biological Science.

Pre-Physical Therapy

Students interested in a career in physical therapy have the opportunity to pursue one of two program options at Biola. Both of these options are designed to meet the entrance requirements of master's degree programs in Physical Therapy. (A master's degree in Physical Therapy would be required to work in this field.) The options contain a common core of courses, but differ in the courses which complement this core. The choice between the two options depends on a student's interests, abilities and ultimate career goals. Physical therapy can be practiced in a variety of settings, from sports to schools to hospitals.

The core courses common to both options include selected courses in biology, chemistry, physics, mathematics and psychology. Pre-physical therapy students typically major in kinesiology

in the Department of Kinesiology, Health & Physical Education, or they major in human biology in the Department of Biological Science. Consult with either of these departments for the specific details of this program.

Other Post-Graduate Health Professional Programs

Many students are interested in careers in areas such as veterinary medicine, pharmacy, optometry, medical technology, podiatry, toxicology, public health and nutrition. Entry into many of these programs does not necessarily require a B.A. / B.S. degree, but it is often advised or is the norm. Each of these areas has its own required basic science and general education courses; the student is advised to determine these from the catalogs of the schools of interest. In general, Biola offers all of the prerequisite courses necessary for gaining acceptance into these programs. Information on several of these programs is available in the Science office or on the Pre-Medical Advisory Committee bulletin board.

Pre-Law

Each year a number of students come to Biola anticipating a career in law. Law schools are seeking students with excellent reading comprehension, strong analytical and critical thinking skills, the ability to write clear and effective prose, oral communication skills and experience in serving other people. They also seek students who have a breadth of knowledge that includes an understanding of history, human behavior, and social and political institutions. The successful completion of a challenging undergraduate program and a high score in the Law School Admission Test (LSAT) is the most appropriate preparation for law school.

The American Bar Association does not recommend any particular undergraduate major as primary preparation for law school. At Biola, pre-law students have chosen from a variety of majors since many law schools look for diversity in the backgrounds of their students. Traditional paths to law school include majors in Business, Communication, English, History and Social Science with an emphasis in Political Science.

For a Christian planning a career in the legal field, Biola's curriculum composed of an undergraduate major, general education and a biblical studies requirement provides a solid foundation. The 30-unit biblical studies program contributes a biblical and theological framework on which to build a Christian perspective on the practice of law, especially in the areas of values and ethics. The implications of a Christian worldview are further developed in the general education curriculum, which can be customized for the pre-law student.

Following the recommendations of the American Bar Association, the pre-law student is urged to select ENGL 240: American Literature, PHIL 210: Introduction to Logic or PHIL 214: Introduction to Philosophy, and POSC 205: Survey of American Government in partial fulfillment of the General Education requirement.

Additional courses can supplement preparation depending on the student's individual areas of interest.

For further information about the LSAT or about the pre-law program at Biola, please see Professor Dave Peters in the Department of History, Government & Social Science in Sutherland Hall.

Pre-Engineering

Biola's pre-engineering program is a 3 + 2 cooperative degree completion program in which a student takes three years of classes at Biola, including the foundational science and mathematics courses of a typical engineering program. In addition, the student takes the biblical studies and general education courses to meet Biola's requirements. Biola has a formal arrangement with the University of Southern California that permits the student, if qualified, to complete the remaining two years of an engineering curriculum at USC and receive both the Bachelor of Science degree from Biola in Engineering Physics, and the Bachelor of Engineering degree from USC. Some students in this program elect to transfer to an engineering school other than USC; students interested in this option should contact the school of their choice no later than the beginning of their sophomore year.

The student interested in this program should major in physical science with an emphasis in pre-engineering.

Pre-Speech / Language Pathology & Pre-Audiology

A student wishing to prepare for careers as a speech-language pathologist or audiologist should choose the Communication Disorders major. Coursework in this major follows the guidelines of the American Speech-Language-Hearing Association (ASHA) and provides students with an understanding of both normal communication processes as well as communication disorders. Students have the opportunity to begin their clinical training in the on-campus Biola Speech & Language Clinic that provides speech-language assessment and treatment for members of the local community in a carefully supervised setting. Students who complete this major are prepared for the graduate studies necessary to obtain professional credentials.

The Communication Disorders major at Biola University is a member of the Council of Academic Programs in Communication Sciences and Disorders and the National Academy of Preprofessional Programs in Communication Sciences and Disorders. In addition, the major has a local chapter of the National Student Speech Language Hearing Association (NSSLHA), which is the American Speech-Language Hearing Association's pre-professional organization for students in communication disorders programs.

Pre-Seminary

Biola University provides an excellent background in undergraduate education for seminary training. Students would be greatly assisted in preparing for their graduate studies by undergraduate

courses in areas such as biblical studies, philosophy, logic, history of Western civilization and advanced composition. The pre-seminary student should compare the program at Biola University with the requirements of the particular seminary the student plans to enter.

Pre-Bible Translation

Students interested in working in Bible translation, linguistics or literacy with organizations such as the Wycliffe Bible Translators are able to get Wycliffe-approved undergraduate courses in these areas. These courses are taught by members of SIL and Wycliffe in the Department of Applied Linguistics & TESOL (ALT). For further information about this program students should contact the SIL office in the School of Intercultural Studies. For information about a minor in Applied Linguistics, see the ALT chair.