Cal Poly at Sea: Golden Bear Program

The Golden Bear Program is jointly sponsored by Cal Poly and the California Maritime Academy (CMA). Participants live and study with cadets from CMA aboard their training ship, T.S. Golden Bear, a 500-foot ex-Navy oceanographic vessel. Every participant is required to first go through an onshore safety and lifeboat-training program. Up early every day aboard ship, students take courses to get Cal Poly credits and also complete a list of ship’s duties. The ship has sailed to many ports including: Hawaii, Fiji, Australia, New Guinea, Japan, Peru, Chile, China, and Alaska. When at port, students enjoy visiting local sites.

Photo courtesy of the College of Science and Mathematics

Then and Now

Dressmaking class in the early 1900s (left). Cal Poly girls were required to make their own graduation dresses.

Students working in the forge shop, 1910 (below).

Photos courtesy of University Archives
Special Programs and Resources

ACADEMIC ADVISING
Academic advising for all students is essential for obtaining a high quality education. It is a partnership in which students and advisers work together to support and enhance student learning and decision making. Students should meet with their advisers regularly in order to plan an academic program, develop a career plan, and discuss issues related to a successful college experience. Each student is assigned, or can select, his or her own faculty adviser. College advising centers also offer a broad range of services.

College Advising Centers
Agriculture ........................................ Contact Department Offices
Architecture & Environ Design Advising Center756-1325
www.calpoly.edu/~caed/the_CAED/Advising_Center/index.html
Business Advising Center .......................... 756-2601
www.cob.calpoly.edu/advctr/index.htm
Engineering Advising Center ........................ 756-1461
www.ee.calpoly.edu/CENGAC/
Liberal Arts Advising Center ......................... 756-6200
cla.calpoly.edu/claaa/cla/advising/claadvising.html
Science and Math Advising Center ................. 756-2615
www.calpoly.edu/~cosam/Advising/index.html

Other Academic Advising Services
Academic Skills Center ................................ 756-1256
sas.calpoly.edu/asc/
Athletic Advising ...................................... 756-2762
www.gopoly.com/academics/index.html
Disability Resource Center .......................... 756-1395
sas.calpoly.edu/drc/
Educational Opportunity Program ................. 756-2301
sas.calpoly.edu/eop/
Entry Level Mathematics (ELM, MAPE) .......... 756-2268
www.calpoly.edu/~math/elm.html

General Education Program
www.calpoly.edu/~acadprog/gened/
Graduate Programs .................................... 756-1508
www.calpoly.edu/~rgp/graduate_programs.html
Health Professions ...................................... 756-2615
www.calpoly.edu/~cosam/health.html
Student Academic Services ......................... 756-2301
sas.calpoly.edu/
Student Support Services .......................... 756-1395
sas.calpoly.edu/sss/
Writing Skills Program (EPT, GWR) ................ 756-2067
www.calpoly.edu/~wrtskils/

ALUMNI ASSOCIATION
Alumni Relations, Albert B. Smith Alumni and Conference Center, 805 756-2586
Cal Poly's Alumni Association links the University with the more than 150,000 students who have attended Cal Poly since 1901. To keep in touch with former students, the Alumni Association coordinates a variety of functions including continuing education, university updates, and spirited programs both on and off campus and throughout California and across the nation.

The Alumni Association is governed by a president, a president elect, a secretary-treasurer, and a board that represents the association both regionally and by college. The Office of Alumni Relations coordinates the activities of the association. The association, with nearly 30 active regional alumni chapters, coordinates events in Alaska, Hawaii, Colorado, New England, Portland, Seattle, and throughout California. The association also coordinates activities of interest-based alumni chapters such as Vines to Wines, FANS, Rose Float and WOW Alumni Associations.

Active members of the Alumni Association enjoy unique benefits such as access to all CSU libraries, access to Cal Poly recreational facilities, group insurance programs, SLO merchant discounts, and special invitations to alumni-sponsored events such as Homecoming and Open House.

The Cal Poly Alumni Association has a special interest in student activities and enhancing the undergraduate experience. Sponsoring POLY REPS, a student alumni council, Senior Cabinet, Running Thunder, ASI Student Alumni Advisory Board, and many student scholarships and student club grants are just a few of the ways that the Alumni Association is positively impacting the student experience.

BIOTECHNOLOGY PROGRAMS
Biotechnology is broadly defined as a fusion between natural sciences such as biology, microbiology, biochemistry, genetics and chemistry and technological fields such as engineering, manufacturing and computer science. Modern biotechnology has evolved over the last twenty years to exploit the power of molecular biology and genetic engineering technology to further develop microorganisms, as well as plants and animals, for improved manufacturing of products. Examples of today's biotechnology products range from the production of human insulin in bacterial cells to the development and use of genetically modified food crops as well as the use of microbes to help clean up the environment (bioremediation) or the use of computers to help decipher complex genetic...
information (bioinformatics). Biotechnology is one of the fastest growing areas in genetics, agriculture, food production, environmental science, pharmaceuticals and biomedical engineering. Employment opportunities in California are at a premium with hundreds of biotechnology-related companies located in the San Francisco, Los Angeles and San Diego areas.

The biotechnology industry is highly interdisciplinary and involves people with backgrounds in biochemistry, biology, microbiology, agriculture, engineering, as well as business and law. Cal Poly offers a number of programs in the Colleges of Agriculture, Engineering and Science and Mathematics for students interested in the study of biotechnology. For additional program information, please refer to the department's catalog description.

College of Agriculture
BS Animal Science
Animal Science Department
The program offers an applied approach to biotechnology with courses such as Frontiers in Biotechnology in Animal Science and Applied Animal Embryology. Contact: Dr. Jonathon Beckett, 805 756-7011, beckett@calpoly.edu

BS BioResource and Agricultural Engineering
BS Agricultural Systems Management
BioResource and Agricultural Engineering Department
These programs offer course concentrations in the bioconversion of agricultural wastes and renewable energy systems. Contact: Dr. Doug W. Williams, 805 756-6153, dwwillia@calpoly.edu.

BS Plant Protection Science, BS Crop Science, BS Fruit Science,
Crop Science Department
Plant Protection incorporates the concepts, benefits, and risks of transgenic crop technologies. Students grow transgenic crops and conduct hands-on investigations of the genetic mechanisms of pesticide resistance that has developed in several pest populations as a result of these technologies.

Crop and Fruit Sciences offer elective areas that provide additional coursework in applied biotechnology as it is related to crops. Contact: Dr. Scott Steinmaus, 805 756-5142, ssteinma@calpoly.edu.

BS Environmental Horticultural Science
Environmental Horticultural Science Department
The program offers study in the applied aspects of plant biotechnology through a tissue culture propagation course and opportunities for independent study and senior project research in its tissue culture laboratory under faculty guidance. Contact: David Hannings, 805 756-2870, dhanning@calpoly.edu.

BS Soil Science
Soil Science Department
The program offers biotechnology-related courses in soil microbiology, soil and water chemistry, and vadose zone remediation. Employment opportunities in the fields of microbial monitoring and land remediation are available. Contact: Dr. Thomas Ruehr, 805 756-2552, truehr@calpoly.edu or Dr. Thomas Rice, 805 756-2420, trice@calpoly.edu.

College of Engineering
BS, MS Computer Science
Computer Science Department
The BS program offers biotechnology-related electives in bioinformatics. Contact: Dr. Tim Kearns, 805 756-2876, tkearns@csc.calpoly.edu. The MS program is designed for maximum flexibility by allowing student to concentrate in one area of study or to blend coursework in several areas. Students have many opportunities to work with industry including summer internships and co-op placements. Various NSF and industry sponsored research projects with faculty are available to graduate students. Contact: Dr. Gene Fisher, 805 756-2416, gfisher@calpoly.edu.

BS Environmental Engineering
MS Civil and Environmental Engineering
Civil and Environmental Engineering Department
The BS program offers courses in traditional environmental biotechnology for treatment of wastewater, as well as innovative bioremediation processes for cleaning up contaminated soil and groundwater. Contact: Dr. Robert Lang, 805 756-2947, rlang@calpoly.edu. The MS program offers an emphasis in biotechnology with coursework in biochemical engineering and thesis research topics in environmental engineering applications of biotechnology. Faculty are actively involved in sponsored research with opportunities for student involvement. Contact: Dr. Nirupam Pal, 805 756-1355, npal@calpoly.edu.

BS General Engineering with Concentrations
MS Engineering with Specialization
College of Engineering
The BS program offers concentrations in Bioengineering, Biomedical Engineering and Biochemical Engineering, as well as a specialization in each of these programs at the MS level. Typical areas of study include: Bioinstrumentation and Medical Devices, Biomaterials, Biomechanics, Bioremediation, Bioelectric Signals and Communications, and Microbiological Interaction with Materials. The programs feature an immediate introduction to the major, personal interaction with faculty, partnerships with industry and a signature laboratory emphasis. The curriculum provides foundations in engineering, integrated with the study of life sciences, ethics and law. Students and faculty are concerned with the design, analysis, integration and operation of engineered materials and engineered systems in medical and biological applications. Contact: Dr. Dan Walsh, 805 756-6400, dwalsh@calpoly.edu.
**College of Science and Mathematics**

**BS, MS Biological Sciences**

*Biological Sciences Department*

The BS program offers a concentration in Molecular and Cellular Biology with coursework in the areas of plant biotechnology, biochemistry, bioinformatics and microbial biotechnology, ethics and protein techniques. **Contact:** Dr. Peter Jankay, 805 756-2826, pjankay@calpoly.edu or Dr. Elena Levine, 805 756-2175; elevine@calpoly.edu. The MS program offers a broad background in the biological sciences and the choice of a thesis research project or additional coursework. Research opportunities are available in biotechnology or bioremediation. Elective courses in microbiology, molecular biology and cell biology allow for further development of depth and breadth. **Contact:** Dr. Dennis Frey, 805 756-2802, dfrey@calpoly.edu.

**BS Microbiology**

*Biological Sciences Department*

The BS program offers a concentration in Applied Microbiology and Biotechnology with coursework in the structure and function of microorganisms and their use in molecular biology, biotechnological and industrial applications. Modern biotechnology is based on the enzymatic and cellular functions of bacteria and viruses, thus the use of microbial cells and their products forms the basis for any biotechnology operation. Elective courses allow students to explore the areas of bioinformatics, applied microbiology, cell biology, ethics and biochemistry. **Contact:** Dr. Susan Elrod, 379, 805 756-2875, selrod@calpoly.edu.

**BS Biochemistry**

*Chemistry and Biochemistry Department*

The BS program offers a concentration in Molecular Biology with coursework in the investigation of the chemical nature of biological molecules related to genes and their expressed products. It augments the biochemistry curriculum by emphasizing laboratory techniques in nucleic acid and protein manipulation along with elective courses exploring the fields of bioinformatics, industrial microbiology, pharmacology, and cell biology. Molecular biology is essential for modern applications of biotechnology in the agricultural, pharmaceutical, and medical industries and in pursuing research in all biochemistry related disciplines. **Contact:** Dr. Ralph Jacobson, 805 756-2796, rjacobso@calpoly.edu or Dr. John Goers, 805 756-1671, jgoers@calpoly.edu.

**Biotechnology Minor**

The minor consists of courses in molecular biology, genetics, immunology, and protein techniques and elective courses in cell biology, industrial microbiology, and plant biotechnology. It is open to any major, except students taking related concentrations in Biochemistry, Biology or Microbiology. **Contact:** Dr. John Goers, Chemistry and Biochemistry Dept., 805 756-1671, jgoers@calpoly.edu or Dr. Susan Elrod, Biological Sciences Dept., 805 756-2875, selrod@calpoly.edu.

**Other Biotechnology-Related Programs**

The mission of the **Dairy Products Technology Center (DPTC)** is to support the maintenance, growth and continued economic health of the dairy foods industry. The DPTC conducts research that provides the scientific and technological basis for new and improved dairy food products and processes and trains students to enter careers in the dairy industry and allied fields. The DPTC is also involved in food safety and technology transfer. **Contact:** Dr. Rafael Jimenez-Flores, 805756-6103, rjimenez@calpoly.edu.

The **Environmental Biotechnology Institute (EBI)** focuses on advancing biotechnology research on the Central Coast. Faculty partnerships with major corporations and local laboratories carry out research efforts and offer learning experiences for students. Research projects include the study of microbial communities in the environment, genomics, bioremediation, fungal biotechnology, and microbial diversity and evolution. **Contact:** Dr. Chris Kitts, Associate Director, 805 756-2949, ckitts@calpoly.edu.

The **Renewable Energy Institute**, a multidisciplinary institute involving the Colleges of Agriculture, Engineering and Architecture, offers research and teaching opportunities in the development of renewable energy sources including biomass, wind, passive- and active- solar energy. **Contact:** Dr. Doug Williams, 805-756-6153, dwillia@calpoly.edu.

**Advanced Technology Laboratory – St. Jude Bioengineering Laboratory**

This lab symbolizes the dynamic partnership between academia, government and industry, which provides the resources for optimal learning. Within this complex, faculty and students pursue challenging, industry-sponsored applied research projects such as bioinstrumentation, medical devices, biomaterials, biomechanics, bioremediation, prosthetic robotics and microbial interaction with materials. The largest projects currently underway include efforts to: develop micro-mechanical model for bone (NIH), develop a model for blunt trauma to tissue (US Army), and test and model the behavior of arterial stents (NSF). **Contact:** Dr. Dan Walsh, 805 756-6400, dwalsh@calpoly.edu.

**CAMPUS DINING**

The Foundation's Campus Dining prepares nutritious and delicious meals for Cal Poly's 2,800 residence hall students and 6,000 other campus customers each day. With fourteen food outlets located throughout campus, Campus Dining has an extensive offering of snacks to full meals to campus-grown produce. Three dining restaurants, Light House, VG Cafe, and Sandwich Factory, provide meal plan service. Other restaurants include BackStage Pizza, Julian’s Gourmet Coffee, Tapangos, The Avenue Food Court, Lucy’s Juice, Lucy’s Juice Too, and Veranda Café. Vista Grande Restaurant offers elegant, full table service meals. Campus Catering is always available for special events.
Membership in the Campus Express Club, a value card program, is open to all Cal Poly students, faculty and staff. Members deposit money to their accounts and then use their campus I.D. cards to make purchases at Campus Dining locations and El Corral Bookstore. Membership has its privileges, including special discounts offered at Campus Dining locations.

**COMMUTER & ACCESS SERVICES**
*RideShare Office, Univ. Police, Bldg. (74), 805 756-6680*

The RideShare office is available to all students, faculty and staff to help them choose the best option for traveling to Cal Poly. Carpool partner matching services, special bus rates for the city and county buses, and vanpools for employees are a few of the convenient choices offered. Commuter and Access Services is committed to help reduce traffic, keep the air clean, solve parking congestion on campus, as well as to help students and employees save money and wear-and-tear on their cars.

**COMPUTING AT CAL POLY**
*Information Technology Services*
*Jerry Hanley, Vice Provost & CIO*
*Frank E. Pilling Bldg. (14), 805 756-7000*

See "Computing Resources" www.calpoly.edu

Information technology plays an increasingly important role on campus, both in the academic programs and administrative services. Computer literacy is a General Education requirement for technical programs at Cal Poly, and information technology is used in all academic disciplines.

Professional techniques and systems are simulated in the classroom environment. Research grants, special projects, and equipment donations from industry supplement existing campus computing resources to provide a practical, “hands on” learning environment. Students frequently encounter computers in their classes, and are strongly encouraged to have access to a computer in their residences.

Information Technology Services plans, coordinates, manages and supports campuswide information technology resources and services. These include shared administrative and instructional applications and databases; computer processing; basic telephone and network services; open access student computing labs, mediated classrooms and other facilities; multimedia and web development; access to online courses; and consulting and training on supported hardware, software, and network services.

**Resources and Facilities**

Campuswide hardware systems include an IBM 9672-R24 CMOS mainframe computer, Sun and other UNIX servers, a network of Java workstations, various departmental servers, and advanced workstations. While some of the computers run specialized academic applications, many are available for use by all Cal Poly students.

Campuswide communication systems include an Ericsson digital telephone switch, high-speed ethernet network (including network connections in every campus residence hall room), dial-in modem pool, wireless modems, and open access ports in student study areas and classrooms.

These systems provide access to electronic mail, application software, the Internet and World Wide Web, on-line library resources and specialized databases, instructional materials, and other networks and information services.

Cal Poly has several microcomputer lab/classroom facilities for instruction, independent study, and research and development. Apple Macintosh, HP, IBM, Sun, Cisco and other systems are available to students. Extensive efforts are underway to make campus information technology resources accessible to persons with disabilities. An integrated database on distributed servers facilitates administrative processes such as admissions and records, financial aid, class scheduling, fiscal operations and human resource management. These resources are linked through the campuswide data communications network.

Media Application Services provides faculty access to specialized resources to design, produce and deliver mediated instructional materials. A similar facility is available in the library for student use.

Other campus resources include increasing numbers of smart classrooms, distance learning and videoconferencing facilities, on-line tools to facilitate easy access to and retrieval of information from university databases, and a centrally-located help desk to advise students, faculty and staff on how to access and use these technologies.

Students, faculty, staff and others accessing Cal Poly’s information technology resources agree to abide by the Responsible Use Policy and other policies posted at www.calpoly.edu/computing/policy.html.

**EXTENDED STUDIES**
*Extended University Programs & Services*
*Dennis Parks, Dean*
*Jespersen Hall (116), Room 101, 805 756-2053*
[exted@calpoly.edu](mailto:exted@calpoly.edu)  [www.calpoly.edu/~exted](http://www.calpoly.edu/~exted)

Extended Studies is responsible for furthering the academic and outreach mission of Cal Poly beyond the traditional undergraduate experience. Composed of the Department of Extended Education and the Department of Conference Services, Extended Studies is committed to developing and offering a wide range of innovative lifelong learning opportunities for the citizens of California and the nation. These activities are offered in a variety of learning formats including classroom instruction, distance learning, and client centered services both on- and off-campus.

Extended Education publishes a quarterly catalog available on its web site. To be placed on the mailing list, please call or email the office.
The Department of Extended Education offers courses and programs for individuals ranging from the very young to retired seniors. These opportunities include both non-credit and credit programs in fields that reflect the mission and strength of Cal Poly. All programs are self-supporting through student enrollments or agency sponsorship.

Open University. This enrollment option enables members of the community to register for regular Cal Poly courses on a space available basis. Open University is a non-degree registration option. Limits as to the number of credits earned through Open University may apply when seeking admission to a degree program. Individuals wishing to take advantage of this option must secure permission of Extended Education, the course instructor, and the Dean (or her/his representative) of the school offering the course. Enrollment forms may be obtained from Extended Education two weeks prior to the beginning of each quarter.

Certificate Programs. Extended Education offers certificate programs for those desiring to advance in their profession or make a career change. Currently offered certificate programs include: Advanced Management, Human Resources Development, Instructional Technology for Teachers, Management and Supervisory Development, Paralegal Studies, Technical Communications, and Wine Industry.

Programs for Professionals. For those not desiring to earn a complete certificate program, Extended Education offers a wide range of shorter educational opportunities for those seeking to learn new skills or update existing knowledge. These programs may last a single evening or an entire quarter.

Programs of Personal Enrichment. These programs are designed to provide an introduction to new areas of knowledge. The length of each program will vary by its topic and target audience.

Conference Services. The Department develops and coordinates workshops, seminars, and conferences for both on- and off-campus organizations. As a full-service conferencing unit, Conference Services provides registration services, budget management, and logistical arrangements encompassing catering, housing, facility reservations, transportation, tours, etc.

THE FOUNDATION
Foundation Administration Bldg. (15), 805 756-1131

The Cal Poly Foundation is a separate, but closely linked auxiliary organization serving the University across several key support functions:

• Enterprises – El Corral Bookstore, Cal Poly Downtown, and Campus Dining.
• Business Services – Sponsored Research and Grants, Conferencing and Workshops.
• Advancement Support – Gifts, Endowment and Trust Management Services.
• Student Aid to Instruction – University Graphics System, Student Enterprise Projects.
• Technology Transfer and Innovation – Financial Support and Administration.

A Board of Directors composed of faculty, students, community leaders and university administrators oversees Foundation operations. Foundation activities are requested and approved by the University. All Foundation financial transactions and its operations are audited each year.

HEALTH SCIENCES:
Preprofessional Preparation
Health Professions Office, 805 756-2615

Cal Poly provides excellent preparation for students interested in a career in the health professions. There are a number of resources available for students who have questions about pursuing a career in the health professions. Students should begin their preparation by visiting the Health Professions Peer Advisers or the Access to Health Careers office.

Health Professions Peer Advising Program
Peer Advisers, 805-756-6510,
www.calpoly.edu/~cosam/health/peer.html

Health Professions Peer Advisers are upper-division students who advise students regarding health professions, including information about required coursework, gaining experience in health care, and application strategies. Students should meet with a Peer Adviser before seeing a health professions adviser.

Access to Health Careers
Access to Health Careers, 805 756-2840

The Access to Health Careers office offers additional, more detailed advising and possible reference to other advisers. Advising offered through this program includes assistance in applying to internships, summer programs and research opportunities, and development of the application to professional school. Please see "College of Science and Mathematics," for more information.

Health Professions Resource Committee

The Committee assists students, regardless of their major, in all phases of their career preparation. The Resource Committee consists of faculty and staff from the departments of Animal Science, Biological Sciences, Chemistry and Biochemistry, Food Science and Nutrition, Mathematics, Physical Education and Kinesiology, Psychology and Child Development, Speech Communication, Health and Psychological Services, Career Services, the College of Science and Mathematics Advising Center, and the Access to Health Careers Program.

Choosing a Major

There is no best major to prepare students for professional school as long as the prerequisite courses for the chosen...
profession are completed. A major should be chosen on the basis of interest and as preparation for an alternate career. Professional schools are concerned with the overall quality and scope of the undergraduate work and not with the major course of study. Specific requirements vary for each professional school, so students should contact the schools directly.

**Special Programs and Services**

Many special programs, events and academic courses are offered throughout the year for students interested in the health professions. To be well-informed about the range of events and activities offered, Cal Poly students should sign up with the Health Professions Distribution List (contact the Health Professions office, 756-2615). Students should also purchase a copy of the Health Professions Handbook from El Corral Bookstore. The following information is general. Cal Poly students should not use it as an advising tool.

The following Cal Poly courses meet the minimum preparation:

**Chiropractic.** Students generally complete two years of undergraduate coursework prior to admission to chiropractic school. For more information consult the latest edition of "The Chiropractic College Directory" or [www.chirocolleges.org](http://www.chirocolleges.org)

<table>
<thead>
<tr>
<th>Course</th>
<th>BIO 151, 153</th>
<th>MCRO 221 or 224</th>
<th>CHEM 127, 128, 129, 316, 317, 318</th>
<th>ENGL (writing/lit) 3 courses</th>
<th>CHEM 317, 318, 319</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credits</td>
<td>12</td>
<td>12</td>
<td>8</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Dentistry.** Students generally complete their undergraduate coursework prior to admission to dental school. For exact prerequisites check individual catalogs. For exact prerequisites, check individual catalogs. For allopathic medicine, refer to the latest edition of "Medical School Admissions Requirements, U.S.A. and Canada" published by the Association of American Medical Colleges or [www.aamc.org](http://www.aamc.org) For osteopathic medicine, refer to the latest edition of "The College Information Booklet," published by the American Association of Colleges of Osteopathic Medicine or their website: [www.aacom.org](http://www.aacom.org). The Medical College Admissions Test (MCAT) should be taken at least one year prior to the projected date of admission.

<table>
<thead>
<tr>
<th>Course</th>
<th>BIO 151, 153</th>
<th>MCRO 221 or 224</th>
<th>CHEM 127, 128, 129, 316, 317, 318, 319</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credits</td>
<td>ENGL (writing/lit) 3 courses</td>
<td>MATH 118, 119</td>
<td>PHYS 121, 122, 123</td>
</tr>
</tbody>
</table>

**Nursing.** Two years are usually required to complete prerequisites prior to transferring into a nursing program. Prerequisites vary and students should consult individual catalogs or the latest edition of "Baccalaureate Education in Nursing: Key to a Professional Career in Nursing" published by the National League for Nursing or [www.nln.org](http://www.nln.org). The following Cal Poly courses meet the minimum preparation for transferring to a BS in nursing degree program:

<table>
<thead>
<tr>
<th>Course</th>
<th>ANT 201</th>
<th>BIO 151, 153</th>
<th>CHEM 127, 128, 312, 319</th>
<th>ENGL (writing/lit) 2 courses</th>
<th>FSN 210</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credits</td>
<td>MCRO 221/224</td>
<td>PSY 201/202, 405</td>
<td>SOC 105</td>
<td>ZOO 331, 332</td>
<td></td>
</tr>
</tbody>
</table>

**Occupational Therapy.** As with many health professions, the specific prerequisites vary from school to school and it will be in the best interest of applicants to check with the schools they are interested in attending regarding specific prerequisites. A good place to start is [www.aota.org](http://www.aota.org)

<table>
<thead>
<tr>
<th>Course</th>
<th>ZOO 331, 332</th>
<th>BIO 151, 153</th>
<th>MCRO 221 or 224</th>
<th>CHEM 127,128,129</th>
<th>ENGL (writing/lit) 3 courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credits</td>
<td>PHYS 121, 122</td>
<td>PSY 201, 256 and 405</td>
<td>1 course in Sociology</td>
<td>2 courses in Humanities</td>
<td>1 course in Statistics</td>
</tr>
</tbody>
</table>

**Optometry.** Students generally complete their undergraduate coursework prior to admission to optometry school. The Optometry Admissions Test (OAT) is required for entrance. For exact prerequisites, check individual catalogs or the latest edition of "Admissions to Schools and Colleges of Optometry" published by the American Optometric Association or [http://opted.org](http://opted.org)

<table>
<thead>
<tr>
<th>Course</th>
<th>BIO 151, 152, 153</th>
<th>CHEM 127, 128, 129, 316, 317, 318</th>
<th>ENGL (writing/lit) 2 courses</th>
<th>MATH 141</th>
<th>MCRO 221 or 224</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credits</td>
<td>PHYS 121, 122, 123</td>
<td>PSY 201/202, plus 2 PSY courses</td>
<td>STAT 130/221/217/218</td>
<td>ZOO 331, 332</td>
<td></td>
</tr>
</tbody>
</table>
Pharmacy. Students generally complete their undergraduate coursework prior to admission to pharmacy school. The Pharmacy College Admissions Test (PCAT) may be required. For exact prerequisites, check individual catalogs or the latest edition of "Pharmacy School Admission Requirements" published by the American Association of Colleges of Pharmacy or [www.aacp.org](http://www.aacp.org).

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 151, 153; 152 or MATH 141, 142</td>
<td>MCRO 221 or 224 PHYS 121, 123</td>
<td>CHEM 127, 128, 129, 316, 317, 318, 319 additional humanities</td>
<td>ECON 211 SCOM 101/102</td>
</tr>
</tbody>
</table>

Physical Therapy. Students generally complete their undergraduate degree prior to admission to a physical therapy program. For exact prerequisites, check individual catalogs or the latest edition of "Directory of Physical Therapy Education Programs" published by the American Physical Therapy Association or [www.apta.org](http://www.apta.org).

Applicants are expected to have considerable experience in the field. Graduate programs may require the Graduate Record Examination (GRE): BIO 151, 153 PHYS 121, 122, 123 CHEM 127, 128, 129 PSY 201/202, 256/405 CSC 110 STAT 217/218/221 KINE 302 ZOO 331, 332, 340 MCRO 221 or 224

Physician Assistant. Students generally complete their undergraduate coursework and have health care experience prior to admission. Each school has its own special requirements, thus students should consult individual catalogs or the latest edition of the "Physician Assistant Programs Directory" published by the Association of Physician Assistant Programs or [www.aapa.org](http://www.aapa.org).

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCRO 221 or 224</td>
<td>PHYS 201/202, 405</td>
<td>CHEM 127, 128, or 111 SOC 105, 106</td>
<td>ENGL (writing/lit) 3 courses ZOO 331, 332</td>
</tr>
<tr>
<td>MATH 118 Additional humanities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Public Health. Students generally complete their undergraduate degree prior to admission to a school of public health. Because the fields of concentration in public health are so varied, diverse educational backgrounds are welcomed and there are no specific courses identified as required. For exact prerequisites, check individual catalogs. For more information, contact the Association of Schools of Public Health or [www.apha.org](http://www.apha.org).

Veterinary Medicine. Students generally complete their undergraduate coursework prior to admission to veterinary school. For exact prerequisites and residency requirements, check individual catalogs or the latest edition of "Veterinary Medical School Admission Requirements in the United States and Canada" published by Betz Publishing Company, Inc. or [www.aavmc.org](http://www.aavmc.org). Applicants are expected to have considerable experience in the field. A professional exam is usually required for entrance. The following Cal Poly courses meet the minimum preparation for Davis:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirement</th>
<th>Course</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 151, 153, 303/351 PHYS 121, 122</td>
<td>CHEM 127, 128, 129, 316, 317, 371</td>
<td>PSY 201/202 STAT 211/218</td>
<td></td>
</tr>
<tr>
<td>ENGL (writing/lit) 3 courses</td>
<td>ZOO 405</td>
<td>MCRO 221 or 224</td>
<td>BIO 432 or VS 438</td>
</tr>
</tbody>
</table>

**INTERNATIONAL EDUCATION & PROGRAMS**

International Education and Programs (IEP) Office
Bldg 38, Room 108, 805 756-1477
[www.calpoly.edu/~iep](http://www.calpoly.edu/~iep/)

The goal of International Education and Programs (IEP) is to match the student with the program best suited to meet his or her needs. Cal Poly graduates in the 21st century will be citizens of a world in which thinking and working across cultures will be a requirement for a successful career. Many Cal Poly departments support the concept of international education and encourage students to investigate opportunities for overseas study.

Students interested in studying abroad should begin by stopping by the IEP office, Cal Poly’s clearinghouse for information on all study abroad programs. An extensive resource center and library provide students with printed material and web sources on study abroad worldwide. A study abroad adviser is available for discussion.

**The CSU International Programs**

Developing intercultural communication skills and international understanding among its students is a vital mission of the California State University (CSU). Since its inception in 1963, the CSU International Programs has contributed to this effort by providing qualified students an affordable opportunity to continue their studies abroad for a full academic year. More than 12,000 CSU students have taken advantage of this unique study option.

International Programs participants earn resident academic credit at their CSU campuses while they pursue full-time study at a host university or special study center abroad. The International Programs serves the needs of students in over 100 designated academic majors. Affiliated with more than 50 recognized universities and institutions of higher education in 17 countries, the International Programs also offers a wide selection of study locales and learning environments.

Additional information and application materials may be obtained from the IEP Office or from the CSU International Programs, 401 Golden Shore, Sixth Floor, Long Beach, CA 90802-4210, or [www.gateway.calstate.edu/csuienet/](http://www.gateway.calstate.edu/csuienet/)

**Fees**

The CSU International Program pays all tuition and administrative costs for participating California resident students to the same extent that such funds would be
expended to support similar costs in California. Participants are responsible for all personal costs, such as transportation, room and board, living expenses, and home campus fees. Participants remain eligible to receive any form of financial aid (except work-study) for which they can individually qualify.

**Admission**

To qualify for admission to the International Programs, students must have upper division or graduate standing at a CSU campus by the time of departure. Students at the sophomore level may participate in the intensive language acquisition programs in France, Germany, and Mexico. California Community Colleges transfer students are eligible to apply directly from their community colleges. Students must also possess a current cumulative grade point average of 2.75 or 3.0, depending on the program for which they apply. Some programs also have language study and/or other coursework prerequisites.

**Applications**

For the academic year overseas, applications must be submitted by February 1. Australia and New Zealand are exceptions, having a deadline of May 1.

**Programs**

**Australia.** The University of Western Sydney

**Canada.** The universities of the Province of Quebec, including: Université de Montréal, Concordia University, Université Laval, McGill University, Université du Quebec system, Bishop’s University

**Chile.** Pontifica Universidad Católica de Chile (Santiago)

**Denmark.** Denmark's International Study Program (the international education affiliate of the University of Copenhagen)

**France.** Institut des Études Françaises pour Étudiants Étrangers, Université de Droit, D'Économie et des Sciences D'Aix-Marseille (Aix-en-Provence). Mission interuniversitaire de coordination des échanges franco-américains, Universités de Paris III, IV, V, VI, VII, VIII, IX, X, XI, XII, XIII, the Institute of Oriental Languages and Civilizations, and University Evry

**Germany.** Universität Tübingen and a number of institutions of higher education in the Federal state of Baden-Württemberg

**Israel.** Tel Aviv University, The Hebrew University of Jerusalem

**Italy.** CSU Study Center (Florence), Università degli Studi di Firenze, La Accademia di Belle Arti di Firenze

**Japan.** Waseda University (Tokyo)

**Korea.** Yonsei University (Seoul)

**Mexico.** Instituto Tecnológico y de Estudios Superiores de Monterrey, Campus Querétaro

**New Zealand.** Lincoln University (Christchurch), Massey University (Palmerston North)

**Spain.** Universidad Complutense de Madrid, Universidad de Granada

**Sweden.** Uppsala Universitet

**Taiwan.** National Chengchi University (Taipei)

**United Kingdom.** Bradford University, Bristol University, Hull University, Kingston University, Sheffield University, University of Wales, Swansea

**Zimbabwe.** University of Zimbabwe (Harare)

**Cal Poly’s Exchange Programs**

**Australia**

Univ of Canberra, Royal Melbourne Institute Tech (RMIT) Construction Mgt University of Melbourne .................Landscape Architecture

Swinburne U. of Technology ........................................ Business

Univ of New South Wales................................. Architecture

Univ of Queensland................................. Architecture

Univ of Technology, Sydney....................... Construction Mgt

Victoria College of Agric & Hort ....... Environ Horticult Sci

**Canada**

University of Guelph.................................Landscape Architecture

**Costa Rica (Internship Exchange)**

Escuela de Agricultura de la Región

Tropical Humeda (EARTH)......................... All Majors

**Denmark**

Aarhus School of Business................................. Business

Horsens University............................... Construction Management

**Finland**

Seinajoki Polytechnic................................. Business

**France**

ESC Toulouse ....................................................... Business

L’Ecole de Architecture de Paris-Val-de-Marne ... Architecture

**Germany**

Fachhochschule München ..........Mechanical Engineering

Fachhochschule Karlsruhe .......... Construction Management

**Honduras**

Centro de Diseño Arquitect. Constr. ..... City/Regional Plng

**Hungary**

Lajos Kossuth University ...................... Business

University of Horticulture and Food .... General Agreement

**India**

Marathawad Mitral Mandal’s College of Architecture ......................... Architecture

**Israel**

Bezalel Academy of Arts and Design.......... Architecture

**Kenya**

Agriculture

Farming Systems Kenya............................. Agriculture

**Mexico**

Instituto Tecnológico de Culiacán.......... Agriculture

Instituto Tecnológico y de Estudios Superiores de Monterrey, Campus Querétaro .. Business, Agriculture

**Norway**

University of Norway......................... Landscape Architecture

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2001-2003 Cal Poly Catalog
Spain
University de les Illes Balears.............. Biological Sciences

Sweden
Chalmers University of Technology ...... Mech Engrg, Arch

Switzerland
Interkantonales Technikum, Rapperswil....Landscape Arch

Taiwan (Republic of China)
Chaoyang Technical University ....................... Engineering

United Kingdom
Leeds Metropolitan University ....................... Engineering

Exchange Programs in the United States
National Student Exchange (NSE) Consortium. All Majors

Cal Poly Study Abroad Programs
In addition to The CSU International Programs and agreements for exchange programs, Cal Poly offers the following study programs.

Cal Poly at Sea: Golden Bear Program
This is a joint program sponsored by Cal Poly and California Maritime Academy (CMA). Participants live and study with cadets from CMA aboard their training ship, T.S. Golden Bear, a 500-foot ex-Navy oceanographic vessel. Aboard ship students are members of the crew, required to be up early every day and complete a list of ship's duties. During the day, Cal Poly students take courses with Cal Poly professors to get Cal Poly credits toward their degree. The charted course of Golden Bear Cruise is different every year. The ship has sailed to many ports including: Hawaii, Fiji, Australia, New Guinea, Japan, Peru, Chile, China, and Alaska. When at port, students enjoy visiting local sites. Every participant is required to go through a safety and lifeboat-training program at CMA in Vallejo, CA to earn his or her Merchant Mariner's Document.

Japan Study Program
Cal Poly offers a spring-quarter Japan Study Program. The goal is to provide a foundation for students looking for an educational experience in post-industrial East Asian settings. Students tour Tokyo and other historic locations throughout the country, and experience both the cosmopolitan lifestyle of Kyoto and the more regional, venerable and peaceful way of life in Iwaki.

London Study Program
Since 1984, London Study has brought 2500 students and 130 faculty to live in the city that is arguably the most culturally rich and historically relevant center of western tradition. Students and faculty alike immerse themselves in courses that use London as the laboratory for the subjects studied.

Both a fall and a spring term are available for students choosing the campus’ largest study-abroad option. A varied social and cultural program outside of the classes is built into the program. A wide selection of general education courses are offered, as well as a selected number of non-general education classes in a variety of majors are available.

Fall and spring terms are structured differently to meet different student needs. The spring program closely follows the fast-paced 10-week quarter timeframe. Students fly to London after winter quarter and return in time for summer quarter. For students who wish to extend their living-abroad experience, fall term is 14.5 weeks in length. The additional time allows students to travel more. An optional Prague field trip is available in both terms.

Thailand Study and Internship Program
In an increasingly global environment, California is more closely tied to the Pacific Rim countries. Students have a unique opportunity to study the cultural, economic and social aspects of Thailand, and optional field experiences in Vietnam and Laos.

The Thailand program is offered each spring with a variety of courses for students from all majors. The city of Bangkok serves as a base of operations for Cal Poly faculty and students with field study time in Thailand’s other regions. Participants explore the country’s alluring character and charm and experience its unique blend of ancient culture and modern industry. Paid internships are available to qualified seniors, with positions in U.S. corporations, at the U.S. Embassy, and at international schools and in non-government agencies.

International Student Services
Cal Poly has a strong commitment to an academic environment that supports and emphasizes international and cross-cultural understanding and development. The Coordinator for International Student Services serves as an adviser to international students and encourages social, cultural and academic exchanges between U.S. and international students. Each quarter there is an extensive orientation that assists international students with their adaptation to the U.S., Cal Poly and the San Luis Obispo area.

LIBRARY SERVICES
Robert E. Kennedy Library
Hiram Davis, Dean
Bldg 35, 805 756-2598
www.lib.calpoly.edu

The Robert E. Kennedy Library provides a comfortable and attractive environment for study, research, and browsing. The building features an interior courtyard design, with open stack accessibility, and individual as well as group study areas. The library collection contains nearly five million bibliographic items. This includes over 650,000 volumes in the book collection; periodicals; journals; art prints; more than 1,000,000 microforms, senior projects, government documents, maps, audio visual materials, and various special collections.

One of the major activities of the library is teaching students how to locate, evaluate and apply knowledge. Individual instruction in the use of the library, and library tours for groups and individuals are available. Librarians give lectures to class groups at the request of instructors, and assist users in accessing electronic services available via the library’s
World Wide Web homepage. The Library also offers credit-bearing courses in the use of library materials to students during Fall, Winter, and Spring quarters.

Reference Department
The Reference Department contains extensive holdings of reference materials, indexes and abstracts. The department also provides many electronic services that meet student and researcher needs. These include a wide range of electronic indexes and full text databases, the online catalog of the library’s collections, and connections to a host of resources designed to facilitate research. Most of these electronic resources are available from stations throughout the library as well as remotely via the World Wide Web.

Learning Resources & Curriculum
The Learning Resources & Curriculum Department (LR&C) works closely with the University Center for Teacher Education, county schoolteachers, and home schoolers to provide K-12 resources, and is home to the Learning Resources Display Center, #31, for the California State Department of Education.

Among its diverse collections are juvenile books, teacher's resource guides, curriculum guides, textbooks, study and fine art prints and multimedia. Its multimedia/computer lab provides a variety of equipment for students, faculty and staff. An adaptive computer station provides additional access to the collection and electronic resources.

Government Documents and Maps
The Library is a selective depository for United States and State of California documents. Also found in the government documents collections are the publications of the agricultural experiment stations and extension services for all the states and territories, California city and county documents, NTIS (National Technical Information Service) publications, Diablo Canyon Nuclear Power Plant documents, United Nations Official Reports on microfiche, and atlases and maps.

Special Collections and University Archives
This department offers more than 100 unique research collections on topics ranging from architecture to the early history of television. Many formats of rare materials are found in these collections, including manuscripts, correspondence, business records, architectural drawings, photographs and negatives, and audio and videotape. Collections accepted must relate to the University’s curriculum.

Collection strengths include architectural records and drawings, fine printing and graphic arts, and local and California history. The University Archives houses materials that document the history, growth and development of the University, from its beginnings in 1901 to the present. These materials include campus records, publications, photographs, plans, blueprints, and ephemera dating back to the founding of the University in 1901.

Interlibrary Loan and Document Delivery
Materials that are not available in the Library's collections can be requested electronically through the website at www.lib.calpoly.edu/research/ill/electronic_service.html. These items may be obtained from one of the 23 CSU libraries, the University of California libraries, or from other cooperating libraries throughout the United States and the world.

The Library is committed to providing the campus community with access to the latest information technologies both within and beyond the walls of the library. Inside, patrons will find Polycat (the online catalog), computer workstations and printers, and network connections so laptops may access the Internet. Research can be done via the World Wide Web where Polycat, electronic journals and full text databases are accessed at www.lib.calpoly.edu/research/all_databases/index.html

PERFORMING ARTS CENTER
Ticket hotline: 805 756-2787
Toll-free in California: 888 233-2787
Administrative office: 805 756-7222
www.pacslo.org/

The Performing Arts Center is the result of a partnership and cooperation between Cal Poly, the City of San Luis Obispo, and the community's Foundation for the Performing Arts Center. Located on the campus, it features three performance venues: Sidney J. Harman Hall, Philips Electronics Recital Hall, and the Pavilion. The center accommodates all types of cultural events, from student and local performances to major touring artists, including the annual Mozart Festival in late July and early August.

RESEARCH AND PROJECT INVOLVEMENT
Research and Graduate Programs
Susan Opava, Dean
Bldg. 38, Room 155, 805 756-1508

Faculty actively seek grants and contracts for research and development activities. These sponsored projects enhance the educational program by bringing to the campus state-of-the-art equipment and financial support for undergraduate and graduate student research.

Students who wish to become involved in significant applied research and development activities on the leading edge of their disciplines are encouraged to contact faculty members in their programs who have ongoing projects, to explore becoming part of the project team.

SERVICE-LEARNING COURSES
Student Life, University Union, Bldg 65, Room 217, 805 756-2476

Service-Learning Courses provide students the opportunity to participate in a structured learning experience that combines service to the community with explicit learning objectives, preparation, reflection, and evaluation. Students enrolled in Service-Learning Courses provide direct service...
in areas of need identified by the community, and learn about the context in which the service is provided, the connection between the service and their academic coursework, and their roles as citizens.

**UNIVERSITY ADVANCEMENT**
*Administration Bldg. (01), Room 413*
*805 756-1445*

Donations from alumni and friends provide the "margin of excellence" for the University. Gifts from alumni, parents of students, faculty, staff, corporations, businesses, and foundations enhance ongoing programs, support scholarships, improve the learning environment and supplement state funds to maintain Cal Poly’s margin of excellence.

Gifts can come to the University in many ways: major gifts, annual gifts, planned gifts (which often benefit donors during their lifetimes), endowments, equipment or other in-kind donations, scholarships, and partnerships between the University and corporations and foundations.

Donations can either be restricted to a particular college or program or be given without restrictions to be used where the need is greatest. Non-academic programs such as athletics and the campus library also benefit greatly from donors’ generosity.

**UNIVERSITY HONORS PROGRAM**
*Nancy Clark, Director*
*Robert E. Kennedy Library, Bldg. 35, Room 207*
*805 756-7029*
*www.calpoly.edu/~acadprog/honors/index.html*

The mission of the University Honors Program is to provide our most academically motivated students with the opportunity to develop their potential by fully exploring the resources at Cal Poly. Intellectual creativity and exploration are the hallmarks of the program. In particular, it builds relationships between all colleges on campus and seeks to educate students in the connections between the disciplines, from engineering to English, agriculture to art, and business to biology.

Honors students will have the opportunity to enjoy a varied educational experience, including coursework in specially designed honors seminars as well as learning experiences outside the classroom. Following Cal Poly's distinctive "hands-on" approach to education, students will participate in community projects and co-curricular activities to enhance their coursework. Students are required to take two honors courses per year. These courses are reserved for honors students and are taught in a seminar format affording close interaction between faculty and students. Courses will be enriched with attention to the interdisciplinary nature of knowledge, and instruction will move at a pace appropriate for highly motivated students. Analytical and interpretive study is encouraged and communication skills, written and oral, are developed. All courses will fulfill graduation requirements.

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**UNIVERSITY POLICE**
*Building 74, 805 756-2281*
*www.afd.calpoly.edu/Police/*

The University Police Department offers safety and security services to the Cal Poly population.

In an emergency, dial 9 1 1 to reach University Police’s Emergency Line. White campus phones are available in every Residence Hall and other campus facilities, and blue light emergency phones are also available for emergency calls. A star on campus maps marks blue light emergency phone locations available at the University Police Department. A button on the face of the emergency phone links the call to University Police’s Emergency line. Activating the button establishes a direct telephone line to University Police dispatch for emergency information purposes. After activation, a police vehicle is immediately dispatched to the emergency phone location.

In non-emergency situations, use the University Police main line, 756-2281. This line is also for the campus Escort Service, a Cal Poly Police Community Service Officer Program. Escort service is offered daily from campus locations to off campus sites within one-half mile. Escort Service hours are available at the University Police Department.