



College of Natural and Social Sciences

Department of Geosciences and Environment

<http://www.calstatela.edu/academic/geos/>

Degrees offered

Bachelor of Arts in Geography
 Environmental Option
 Geographic Information Systems (GIS) Option
 Urban Analysis Option
 Bachelor of Science in Geology
 Geology Option
 Environmental Geosciences Option
 Master of Arts in Geography
 Master of Science in Geological Sciences
 General Option
 Environmental Hydrogeology Option
 Master of Science in Environmental Sciences
 Environmental Biology Option
 Environmental Hydrology Option
 Environmental Engineering Science

Minor offered

Geography
 Geology

Certificate programs

Geographic Information Systems (GIS)

Career opportunities

Biogeographer
 Census analyst
 Climatologist/meteorologist
 Computer cartographer
 Environmental analyst
 Environmental impact specialist
 Education
 Engineering geology
 Federal and state geological agencies
 Foreign area specialist
 Hydrogeology
 GIS specialist
 Marketing research analyst
 Medical geographer
 Minerals industry
 National park ranger/naturalist
 Outdoor recreation planner
 Petroleum industry
 Political geographer
 Population analyst/demographer
 Real property analyst
 Regional planner
 Remote sensing specialist
 Resource planning analyst
 Teacher
 Transportation geographer
 Travel consultant
 Urban planner

Geography is a program within the physical and social sciences that offers students the opportunity to explore a wide variety of fields and prepares students for a broad range of occupations. It is an ideal discipline for the individual who is interested in the cultural or physical environment and who enjoys field work and research as well as travel. Geographers practice their knowledge and skills in diverse ways, from studying problems of neighborhood improvement to analyzing satellite imagery. Whether studying traditional human-land relationships or contemporary urban problems, the geographer's responsibilities lie in understanding the complex interrelationships that are part of our physical and cultural environment.

The Department of Geosciences and Environment offers an undergraduate program leading to the Bachelor of Arts degree in Geography, with systematic courses that provide theories and skills useful in applied business, planning, and government. Method-and technique-related courses offered include Geographic Information Systems (GIS) and their applications, remote sensing, spatial statistics and field research.

Geological Sciences is offered as an undergraduate program leading to the Bachelor of Science degree in Geology with a Geology Option or an Environmental Geosciences Option. The undergraduate programs provide a strong, well-rounded background for students pursuing a career in the geological sciences. The Bachelor of Science degree in Geology is intended for students who plan a professional geological career in government or industry or graduate study in geology and related fields. Graduates of this program are employed by over 400 companies in the United States and many have earned graduate degrees from the most prestigious universities in the nation. The department shares responsibility for the interdisciplinary Bachelor of Science degree in Natural Science designed for students who desire a liberal arts education and who plan to become either teachers at elementary through high school levels in California public schools or park rangers, environmentalists, or other physical science naturalists.

Interested students can also obtain a minor in Geography, Geology and/or a certificate in GIS.

The department offers a graduate program leading to the **Masters of Arts degree in Geography**. This M.A. degree program prepares students for teaching at the secondary and community college levels, employment in government and private industry, or further graduate study in Geography.

The **Master of Science degree in Geological Sciences** prepares students for advanced professional-level employment in industry and government, teaching positions in community colleges, and advance study toward the Ph.D. degree.

All faculty members hold a Ph.D. degree and pursue research in a variety of geological topics. For example, they are exploring faults and other structural problems of southern California; the origin and correction of landslides; environmental geochemistry and hydrogeology; sedimentary processes and environments, Quaternary history and geomorphology; and volcanic processes. Undergraduate and graduate students participate in research and frequently present papers at professional meetings. A graduate degree leading to a Master of Science in Geological Science specializing in Environmental Hydrogeology is also offered. Opportunities for preparation exist in various areas including engineering geology, hydrogeology, environmental geosciences, hydrogeochemistry, stratigraphy, structural geology, paleoclimatology, and field geology.

Environmental Science may be studied in an interdisciplinary graduate program leading to the Master of Science degree. This program prepares students for environmental science research, doctoral study, community college teaching, and technical positions in universities, industry, or governmental agencies.

Interpreting the cultural and physical patterns of the Earth requires training in both observational and technical skills. Coursework in technical areas such as computer cartography, GIS, spatial statistics, map and air photo interpretation, remote sensing, field methods, and location analysis are all part of an exceptional degree program that affords the student both variety and specialization. Geography majors pursue programs designed to meet their individual needs, planning their schedules through close and frequent consultation with faculty advisors.

The faculty members are proud of their close relationship with students. This is encouraged by relatively small classes, a department open-door policy, and associated field activities. The department of Geosciences and Environment has several endowed scholarships which are intended to assist students with the summer field program, with undergraduate and graduate research, and to encourage academic excellence. Other scholarships are available to students in all disciplines who meet criteria established by the University. Students with outstanding achievements may join a very active Lambda Pi Chapter of Gamma Theta Upsilon (International Geographical Honors Society). Annual activities include a career fair, department picnic, field trips, and a course-related field camp.

For further information, contact the Department of Geosciences and Environment at (323) 343-2400. California State University, Los Angeles, 5151 State University Drive, Los Angeles, CA 90032. Department home page : www.calstatela.edu/academic/geos/ University home page: www.calstatela.edu

Faculty and areas of specialization:

Kim M. Bishop (Ph.D., University of Southern California)
Field and Engineering Geology; Structural Geology

Kris Bezdecny (Ph.D., University of Southern California)
Urban, GIS, Transportation

Andre Ellis (Ph.D., University of Illinois at Urbana-Champaign)
Hydrogeochemistry, Hydrogeology, Environmental Isotopes

Jennifer Garrison (Ph.D., University of California, Los Angeles)
Volcanology, Igneous Petrology, Mineralogy

Barry Hibbs (Ph.D., University of Texas)
Hydrogeology, Contaminant Waste Hydrogeology, Groundwater Modeling

Stephen LaDochy (Ph.D., University of Manitoba)
Meteorology, Climatology, Environmental Studies, Canada

Jingjing Li (Ph.D. University of California, Irvine)
Remote Sensing, Hydrology, GIS

Stephen Mulherin (Ph.D., Ohio State University)
Historical, Urban, Political, Europe

Hong-Lie Qiu (Ph.D., Louisiana State University)
GIS, Remote Sensing; Biogeography, China

Pedro C. Ramirez (Ph.D., University of California, Santa Cruz)
Sedimentary Petrology, Stratigraphy, Paleoclimatology

Hengchun Ye (Ph.D., University of Delaware)
Climatology, Meteorology, Physical Geography

Majors, in recent years, have attended or completed Ph.D. at:

Arizona State University
Pennsylvania State University
Rutgers University
University of Connecticut
University of Delaware
University of Florida
University of Kentucky
University of Miami
University of Oklahoma
University of Utah
UCLA (Urban Planning)
USC
UCSB
SDSU

California State University, Los Angeles has an enrollment of more than 20,000 students. The campus is located on a 175-acre hilltop at the interchange of the San Bernardino and Long Beach freeways at the western end of the San Gabriel Valley, about five miles east of the Los Angeles Civic Center. You may apply for admission online at <http://www.csumentor.edu/>. The *General Catalog* and *Schedule of Classes* may be viewed online at <http://www.calstatela.edu/>. Cal State L.A. does not discriminate on the basis of race, color, religion, sex, sexual orientation, national origin, age, marital status, pregnancy, disability, disabled veteran's or veteran's status, or any other classification that precludes a person from consideration as an individual.