ENVIRONMENTAL STUDIES
With a Concentration in: Environmental Science
Eberly College of Science & Technology

120 credits

Degree Benefits
The Environmental Studies Program prepares students for a career in environmental science, ecology related areas and graduate work. The emphasis of the program is to provide graduates with a broad core of courses in biology, supplemented with courses in chemistry, physics and mathematics. Each student has the opportunity to select from a wide range of science electives in order to fulfill needs for future work or to prepare for graduate school. Almost all courses include a laboratory portion where students study the practical application of scientific theories and learn about many scientific instruments and various organisms. The degree concentration in environmental science offers students the flexibility to focus on specific content area in the environmental sciences leading to a variety of post-baccalaureate opportunities.

Careers & Job Opportunities
There is a growing need for individuals with environmental and ecological backgrounds to identify, abate, or eliminate sources of pollutants or hazards that affect the environment and the health of the population. Opportunities are diverse and it is anticipated that job growth will be 25% through the year 2016, greater than the national average for all careers. The greatest need will be with industries in the private sector, but with continued opportunities in the non-profit and government sectors as well.

Program Objectives
The objectives of the Conservation Ecology program are to:

• Provide knowledge of biological processes and structures occurring in the ecological sciences.
• Provide laboratory and field experiences which promote scientific inquiry and experimental methods in the environmental sciences and ecology.
• Create opportunities for student research projects to enhance their understanding of environmental and ecological processes.
• Assist students with course selection that will enhance their chosen career path.
• Provide the necessary foundation for continued professional growth in graduate school if desired.
• Provide skills required for entry-level positions with industry, non-profit, and government organizations.

Curriculum
Environmental Science is an interdisciplinary field that seeks to apply this knowledge from many disciplines to the study and management of the environment. The curriculum provides for an understanding of the physical sciences, chemistry, and physics, and a working knowledge of mathematics, and statistics to enable students the knowledge to design, analyze and interpret environmental data. Students will study topics to include ecology, ecosystems and human impacts upon them, biodiversity, pollution, energy, waste, and sustainability. Through various methods such as gathering information, considering values, and exploring consequences, students will gain the tools necessary for evaluating information about environmental issues and making informed decisions. The curriculum is designed to allow students essential field opportunities through internships and undergraduate research projects in the environmental sciences. This core content is enhanced by the breadth of the universities general education requirements.

Note
The policies and procedures described here may be reviewed and revised at any time. This fact sheet should be used as an information guide. For details on current programs, policies and procedures, contact the chair of the department, or the environmental studies program director.

BACHELOR OF SCIENCE IN ENVIRONMENTAL STUDIES-120 CREDITS ENVIRONMENTAL SCIENCE CONCENTRATION
The following eight-semester schedule of courses provides a recommended framework for completing this program of study in four years. To ensure that they are making satisfactory academic progress, students should consult with their faculty advisor, ensure that they complete necessary prerequisites and required courses in sequence, and complete between 14 and 17 credits each semester.
ENVIRONMENTAL STUDIES
With a Concentration in: Environmental Science

Freshman Year

First Semester .................................................... 15 credits
BIO 120 General Zoology or
125 General Botany ........................................... 4 crs.
CHE 101 General Chemistry I. ................................. 4 crs.
ENG 101 English Composition I ...................... 4 crs.
UNI 100 First Year Seminar ................................ 1 crs.
General Education Courses ............................... 3 crs.

Second Semester .............................................. 14 credits
BIO 120 General Zoology or
125 General Botany ........................................... 4 crs.
CHE 102 General Chemistry II ................................ 4 crs.
ENG 102 English Composition II or
Equivalent .......................................................... 3 crs.
General Education Courses ............................... 3 crs.

Sophomore Year

Third Semester ................................................... 16 credits
BIO 215 Cellular & Molecular Bio. or
248 General Ecology ........................................... 4 crs.
MAT 273 Basic Calculus or
281 Calculus I ...................................................... 3 crs.
PHY 121 General Physics I ..................................... 3 crs.
General Education Courses ............................... 6 crs.

Fourth Semester .................................................. 14 credits
BIO 215 Cellular & Molecular Bio. or
248 General Ecology ........................................... 4 crs.
MAT 215 Statistics ................................................ 3 crs.
General Education Courses ............................... 3 crs.
Environmental Science Specialization .................. 4 crs.

Junior Year

Fifth Semester .................................................... 17 credits
Environmental Science Specialization .................. 8 crs.
Related Requirement ......................................... 3 crs.
General Education Courses ............................... 3 crs.
GIS 311 Geographic Info. Systems ...................... 3 crs.

Sixth Semester .................................................... 16 credits
Environmental Science Specialization .................. 7 crs.
General Education Courses ............................... 6 crs.

Senior Year

Seventh Semester ................................................ 15 credits
Environmental Science Specialization .................. 6 crs.
ENS 495 Design & Analysis ................................... 3 crs.
General Education Courses ............................... 3 crs.
Unrestricted Free Electives ................................. 3 crs.

Eighth Semester ................................................ 13 credits
Environmental Science Specialization .................. 4 crs.
General Education Courses ............................... 3 crs.
Related Requirement ......................................... 3 crs.
Unrestricted Free Electives ................................. 3 crs.

About Us
Founded in 1852 as an academy, California University of Pennsylvania is one of 14 universities that comprise the Pennsylvania State System of Higher Education. The main campus, located in California, PA, has 38 buildings on 92 acres on a bend in the Monongahela River. In addition to the main campus, there are a variety of sites and options for undergraduate and graduate education, including:

• Cal U Southpointe Center, a technologically advanced facility located in Canonsburg, Pa., offering graduate, undergraduate and continuing education programs of study. www.calu.edu

• Cal U Global Online, the virtual campus of the Pennsylvania State System of Higher Education, offering completely online degree programs of study for students worldwide. www.calu.edu

Application Questions
Admissions Office
California University of Pennsylvania
250 University Avenue
California, PA, 15419-1394
724-938-4404
Toll free: 1-888-412-0479
Fax: 724-938-4564
inquiry@calu.edu

Program Contact Information
Contact the Department of Biological and Environmental Sciences by phone at 724-938-4200.

Department Website
http://www.calu.edu/academics/colleges/ebiology/biology/index.htm

Financial Aid
For information on student loans and undergraduate scholarships, visit www.calu.edu or call 1-888-412-0479.

Apply Online
www.calu.edu

California University of Pennsylvania is a proud member of the Pennsylvania State System of Higher Education.

Policies and Procedures: Note that the policies and procedures described above may be reviewed and revised at any time. This fact sheet should be used as an informational guide. For details on current policies and procedures, contact the Provost/Vice President of Academic Affairs at 724-938-4407.

Rev 10/10