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 fisheries and wildlife sciences offers students the flexibility to focus on a specific content area leading to, if desired, certification by the American Fisheries Society or The Wildlife Society.

Job Options
A steady demand exists for wildlife and fishery biologists within private industry (e.g., consulting firms), state agencies (e.g., the Pennsylvania Game and Fish commissions), federal agencies such as the U.S. Fish and Wildlife Service and U.S. Forest Service, and non-governmental organizations such as The Nature Conservancy. Some undergraduates further their education through work leading to master's or doctoral degrees.

According to the Bureau of Labor Statistics, growth in this field is expected to exceed 20 percent over the next decade. A 2008 article in Fortune magazine identified wildlife biology as a “hot career,” noting the increased demand for qualified people to inventory and monitor rare and endangered species. Increased demand for clean drinking water, recreation and fish for the table also has resulted in a steady increase in the need for qualified aquatic ecologists and fisheries scientists. As energy demands intensify, fisheries and wildlife biologists will be needed to better manage the nation’s renewable natural resources.

Program Objectives
The objectives of the fisheries and wildlife biology curriculum are to:
• Provide knowledge of biological processes occurring in fisheries and wildlife sciences.
• Provide laboratory and field experiences that promote scientific inquiry and experimental methods in environmental sciences and ecology.
• Create opportunities for student research projects.
• Assist students with course selection that will enhance their chosen career path.
• Provide the necessary foundation for continued professional growth in graduate school.
• Provide skills required for entry-level positions with industry and governmental organizations.

Curriculum
The fisheries and wildlife curriculum at Cal U has been developed using the guidelines established by The Wildlife Society and American Fisheries Society. The curriculum offers not only the breadth afforded by the University’s general education requirements, but also the content knowledge specific to each area of specialization. Degree completion will permit a student to apply for certification by the American Fisheries Society or The Wildlife Society.

Note
The policies and procedures described here 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 chair of the department.
ENVIRONMENTAL STUDIES: FISHERIES AND WILDLIFE CONCENTRATION

Freshman Year
First Semester .................................................................14 credits
BIO 120 General Zoology .................................................4 crs.
ENG 101 English Composition I ......................................3 crs.
UNI 100 First-Year Seminar ...........................................1 cr.
General Education ..........................................................6 crs.

Second Semester .........................................................16/17 credits
BIO 125 General Botany ..................................................4 crs.
ENG 102 English Composition II ....................................4 crs.
CHE 101 General Chemistry I .........................................4 crs.
GEN 281 Calculus ..............................................................3 crs.
General Education ..........................................................6/7 crs.

Sophomore Year
Third Semester ..............................................................14 credits
BIO 215 Intro to Cellular and Molecular Biology ...............4 crs.
CHE 105 General Chemistry II ........................................4 crs.
General Education ..........................................................3 crs.
General Education EMA* ................................................3 crs.

Fourth Semester ...........................................................15 credits
BIO 248 General Ecology ................................................4 crs.
BIO/ENS 300/400 Level Botany Course .........................4 crs.
CHE 102 General Chemistry II .......................................4 crs.
MAT 215 Statistics ............................................................3 crs.

Junior Year
Fifth Semester ...............................................................14 credits
ENS 423 Wildlife Management Techniques OR ..........14 crs.
ENS 424 Fisheries Management ...................................4 crs.
BIO 218 Genetics .............................................................4 crs.
GIS 311 Geographic Information Systems ....................3 crs.
ENS 495 Design and Analysis .........................................3 crs.

Sixth Semester .............................................................16 credits
Law/Policy/Planning Related Elective .........................1 cr.
Biology Specialty Related Elective ..................................4 crs.
Free Elective .................................................................9 crs.

Senior Year
Seventh Semester .........................................................16 credits
ENS 399 Conservation Biology ......................................3 crs.
Biology Specialty Related Elective ..................................4 crs.
General Education ..........................................................6 crs.
Free Elective .................................................................3 crs.

Eighth Semester ........................................................14/15 credits
ENS 428/429 Conservation Management OR .............15 crs.
ENS 425 Principles of Aquaculture ...............................3 crs.
ENS 492 Animal Population Dynamics .......................4 crs.
Free Elective .................................................................7/8 crs.

*EMA=Ethics and Multi-cultural Awareness

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

NOTES
1. California University of Pennsylvania is a proud member of the Pennsylvania State System of Higher Education. Located in the borough of California, just 35 miles from Pittsburgh, Cal U serves about 8,200 undergraduate and graduate students.
2. Cal U’s main campus houses academic buildings, dining and recreation facilities, and six suite-style residence halls.
3. Cal U’s upper campus includes the Vulcan Village apartments, athletic facilities at Roadman Park, and space for student meetings and outdoor recreation at SAI Farm.
4. Cal U Global Online is the University’s virtual campus, offering degree and certificate programs 100% online.

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

QUESTIONS
ABOUT ADMISSIONS?
Office of Admissions
California University of Pennsylvania
250 University Ave.
California, PA 15419-1394

Phone: 724-938-4404
Toll-free: 888-412-0479
Fax: 724-938-4564
E-mail: inquiry@calu.edu

www.calu.edu

A proud member of the Pennsylvania State System of Higher Education.

FINANCIAL AID
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ABOUT US
California University of Pennsylvania is an academic community dedicated to the ideals of justice, fairness and equal opportunity for all. In compliance with federal and state laws, the University is committed to providing equal educational and employment opportunities for all persons without regard to race, color, sex, religion, national origin, age, disability, ancestry, sexual orientation or status as a disabled or Vietnam era veteran. The University will not tolerate racial, ethnic or sexual discrimination. Sexual harassment is considered by law to be a form of sexual discrimination and is, therefore, unacceptable. Direct equal opportunity and affirmative action inquiries or complaints to the Special Assistant to the President for Equal Employment and Educational Opportunity (EEOO), Office of Social Equity, South Hall 112, 724-938-4014. Direct inquiries regarding services or facilities accessibility to the ADA/504, Compliance Officer, Office of Student Development and Services, G.52 Carter Hall, 724-938-4056. Direct Title IX inquiries to the Senior Women’s Administrator/Title IX Coordinator, Department of Athletics, Hamer Hall 248, 724-938-4351.

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.