

**Environmental Studies Requirements**

A minimum of 91 hours (20 upper-division hours)

► **Required Core Courses (61 hours):**

BIOL 111+12+13	Biological Foundations I,II,III	5+5+5
BIOL 221+ 222	Intro to Research Methods I,II	2+2
BIOL 233	Ecology	4
BIOL 450	Philosophy of Origins	3
CHEM 111+L	General Chemistry I+Lab	4+1
CHEM 112+L	General Chemistry II+Lab	4+1
CHEM 113+L	General Chemistry III+Lab	4+1
ENVR 360+L	Conservation Biology+Lab	3+1
ENVR 361+L	Energy/Climate Change+Lab	3+1
ENVR 362+L	Pollution/Envr Quality+Lab	3+1
ENVR 396	Science Seminar	.5
ENVR 397	Environmental Studies Seminar	.5
ENVR 494	Internship	4
RELT 240	Eco-theology	3

► **Required Core Electives (30 hours):**

At least 30 hours from the following: 30

AGRI 212	Home Greenhouse Gardening (2)	
AGRI 213	Organic Vegetable Gardening (2)	
BIOL 227+L	Natural Hist of California+Lab (3+1)	
BIOL 323	Vertebrate Biology (4)	
BIOL 325	Flowering Plants (3)	
BIOL 328	Animal Behavior (4)	
BIOL 331	Marine Science (4)	
BIOL 338	Field Biology (3)	
BIOL 366	Medical Microbiology (5)	
CHEM 324+L	Analytical Chemistry I+Lab (2+1)	
CHEM 325+L	Analytical Chemistry II+Lab (2+1)	
CHEM 326+L	Analytical Chemistry III+Lab (2+1)	
CHEM 371+L	Organic Chemistry I+Lab (3+1)	
CHEM 372+L	Organic Chemistry II+Lab (3+1)	
CHEM 373+L	Organic Chemistry III+Lab (3+1)	
CHEM 450L	Physical Chemistry Lab (1)	
CHEM 451	Thermodynamics (3)	
CHEM 452	Kinetics (3)	
ENVR 412	Research in Envir Studies (1+3)	
GEOL 233	Geology (4)	
INFS 200	Introduction to GIS (2)	
MATH 131+132	Calculus I,II (4+4)	
PHYS 111+12+13	General Physics I,II,III (4+4+4)	
PLSC 329	Environmental Policy (3)	

The department advisor will help each student select elective courses from the list above depending on the student's area of interest. These recommendations will be designed to help the student become better prepared for a job or for graduate school in more specialized areas of environmental studies. Possible areas of interest include:

- ~ Air Quality
- ~ Conservation Biology
- ~ Energy
- ~ Environmental Economics
- ~ Environmental Policy
- ~ Marine Resources
- ~ Solid Waste Management
- ~ Water Management

**PUC Campus Requirements**

**Religion (9 hours)**

PUC is a Seventh-day Adventist Christian institution and religion coursework is a foundational part of the curriculum. ADT students must complete 3 religion courses at PUC as follows:

- RELG 105 Biblical Foundations (3 hours)  
*Note: Students who demonstrate biblical knowledge (by passing a waiver exam or presenting religion coursework from high school) may substitute an elective religion course in place of RELG 105.*
- One approved "Studying Scripture" course that explores and critically analyzes biblical texts and themes. (3 hours)
- One approved "Exploring SDA Life and Thought" course that explores and critically analyzes Seventh-day Adventist beliefs and values. (3 hours)

**Health & Fitness, Practical & Applied Arts (6 hours)**

PUC expects graduates to demonstrate the knowledge, skills, and inclination necessary to sustain a healthy, well-balanced life. Therefore all baccalaureate graduates must complete the following requirements. These courses may be taken at PUC or may be transferred.

- One theory course in the area of nutrition or health education. Minimum 2 quarter hours total.
- Two exercise science activity courses. One must include a significant aerobic activity component. Minimum 2 quarter hours total.
- Two practical and applied arts courses, each from a different area. Minimum 2 quarter hours total. Areas include:
  - A. Interpersonal Skills
  - B. Management of Information & Finance
  - C. Outdoor & Survival Skills
  - D. Visual and Performing Arts

**Environmental Studies at PUC**

The core requirements of the Environmental Studies major provide a solid foundation for various specializations. By selecting the appropriate electives, our B.S. degree allows students to create their own emphases. In order to enhance employability or admission to graduate schools, it is highly recommended that students be clear on their vocational objectives and consult with departmental advisors as needed.

A required Internship includes volunteer service or employment with an environmental organization, thus providing crucial on-the-job experience. Career possibilities include jobs in air quality, conservation biology, energy, environmental economics, environmental policy, marine resources, solid waste management, water management and wildlife management.

The program is offered through the Pacific Union College Department of Biology. The department encourages students to consider the study of life an exciting and continuing challenge, whether at the level of molecules, cells, organisms, populations or ecosystems.

## Graduation Requirements

- A total of 192 quarter hours
- A total of 60 UD quarter hours
- Minimum GPA of 2.0

Taken at Community College

- AS-T in Environmental Science
- Lower-division GE requirements (met by the AS-T)

May be taken at Community College or at PUC

- Health requirement (1 course)
- Fitness requirement (2 courses)
- Practical & Applied Arts requirement (2 courses)

Taken at PUC

- All remaining requirements for the Env. Studies major
- Religion requirement (9 hours)
- GNST 401: Senior Assessment Seminar (0.2 quarter hours)
- Electives as needed for 192 hours/60 UD hours total

## How to Construct Your Own Program

1. Counsel with your advisor.
2. Consider your aptitudes, interests, and available courses.
3. Schedule major courses and cognates first.
4. Fill the rest of your schedule with G.E. requirements and electives.
5. Choose a variety of upper-division coursework (300-level and 400-level courses) to achieve 60 total units.

## About PUC

Pacific Union College is a fully accredited Christian liberal arts college located in California's Napa Valley. Affiliated with the Seventh-day Adventist Church, PUC offers a broad range of academic programs in a caring Christian environment. PUC is noted for excellence in education, incredible beauty, and student diversity.

### PUC Enrollment

Enrollment Services  
 Phone: 1-800-862-7080  
 Email: enroll@puc.edu  
 Website: <http://www.puc.edu/admissions>

### Biology Department

Phone: 707-965-7577  
 Website: [www.puc.edu/biology](http://www.puc.edu/biology)

## Sample Program

This program is designed for students who have completed an AS-T in Environmental Science at a California Community College prior to transfer to PUC.

### AS-T Environmental Science Major Coursework

A minimum of 57 units of major coursework is completed as part of the AS-T in Environmental Science. These transfer courses apply to meet the following major requirements at PUC.

*One of the following options:*

- ~ Biological Foundations Sequence (4, 4, 4)
- ~ General Chemistry I,II (7.5)

OR

- ~ Biological Foundations I (6)
- ~ General Chemistry Sequence (5, 5, 5)

*Plus the following courses:*

- ~ Ecology (4.5)
- ~ Calculus I or II (4.5)
- ~ General Physics Sequence (4, 4, 4)
- ~ Physical Geology or Geography (6)
- ~ Statistics (4.5)
- ~ Microeconomics (4.5)

A minimum grade of C- is required for any course that is applied to the major.

### PUC Coursework

This sample curriculum is designed to show you how a two-year program may be constructed in order to complete the BS in Environmental Studies at PUC. The order of the courses may vary, and your list of required courses may be adjusted depending on the transfer courses you completed for your AS-T degree. Your advisor will help you design a personalized program of studies.

	<b>F</b>	<b>W</b>	<b>S</b>
<b>Junior Year</b>			
Biological Found. II, III or G. Chem III	(5)	-	5
Introduction to Research Methods I,II	-	2	2
Conservation Biology+Lab	4	-	-
Energy and Climate Change+Lab	-	4	-
Pollution and Environmental Quality+Lab	-	-	4
Science Seminar	-	.5	-
Eco-Theology	3	-	-
Upper-Division Electives	4	4	4
General Education/Electives	1	7	2
	<b>17</b>	<b>17.5</b>	<b>17</b>
<b>Senior Year</b>			
Philosophy of Origins	-	3	-
Internship	-	4	-
Environmental Studies Seminar	-	.5	-
Environmental Studies Electives	4	-	4
Senior Assessment Seminar	-	-	.2
Upper-Division Electives	4	4	4
General Education/Electives	9	6	8
	<b>17</b>	<b>17.5</b>	<b>16.2</b>