

**Biology Major Requirements**

A minimum of 88 hours (38 upper-division hours)

► **Required Core Courses (40 hours):**

BIOL 111+112+113	Biological Foundations I,II,III	5+5+5
BIOL 221+ 222	Intro to Research Methods I,II	2+2
BIOL 233	Ecology	4
BIOL 320	Cellular and Molecular Biology	4
BIOL 348	Systems Physiology	5
BIOL 354	Genetics	4
BIOL 396	Science Seminar	.5
BIOL 397	Biology Seminar	.5
BIOL 450	Philosophy of Origins	3

► **Required Core Electives (9 hours):**

At least 9 hours from the following: 9

In consultation with the advisor, select additional upper-division BIOL courses. BIOL 345+L, CHEM 481, and ENVR 360+L may also apply.

► **Required Cognate Courses (39 hours):**

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
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
PHYS 111+12+13	General Physics I,II,III	4+4+4

**Biology at PUC**

By offering course work and laboratory experience concerning microorganisms, plants, animals, humans, and the interrelationships among these living things, the Pacific Union College Department of Biology encourages students to consider the study of life an exciting and continuing challenge, whether at the level of molecules, cells, organisms, populations or ecosystems.

**Mission Statement**

- ~ To provide an excellent education in the life sciences which is based upon the latest scientific discoveries and our belief in God as the Creator of life.
- ~ To encourage intellectual curiosity, critical thinking, integrity, responsibility, and altruism.
- ~ To prepare graduates for employment, for professional education, for secondary science teaching, and for graduate work in the many specialized fields of biology.
- ~ To offer foundational life sciences such as anatomy, physiology, and microbiology for allied health majors.
- ~ To treat each student with respect and dignity that encourages lifelong friendships.
- ~ To teach preservation and restoration of our natural environment.

**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

**Language Proficiency (4 hours)**

PUC expects BA graduates to be able to read and communicate at the intermediate level in a foreign language. This requirement may be met at PUC or may be transferred.

- One intermediate-level foreign language college course.  
*Note: Students may also meet this requirement through a documented rating of Intermediate-Mid or higher for an ACTFL Oral Proficiency Interview in a foreign language.*

*Please note:* It is challenging to complete a pre-medical or pre-dental program in conjunction with an ADT pathway. PUC faculty recommend that pre-medical and pre-dental students spend all 4 years at PUC in order to obtain a cohesive undergraduate program. For additional information, please see: [www.puc.edu/pre-dentistry](http://www.puc.edu/pre-dentistry) and [www.puc.edu/pre-medical](http://www.puc.edu/pre-medical).

**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 Biology
- 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)
- Foreign Language requirement (1 course)

Taken at PUC

- All remaining requirements for the Biology 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 Biology at a California Community College prior to transfer to PUC.

**AS-T Biology Major Coursework**

A minimum of 43.5 units of major coursework is completed as part of the AS-T in Biology. These transfer courses apply to meet the following major requirements at PUC.

- ~ Biological Foundations Sequence (4, 4, 4)
- ~ General Chemistry Sequence (5, 5, 5)
- ~ Physics Sequence (4, 4, 4)
- ~ Math Elective (4.5)
- ~ Lower-division Biology Elective (0-6)

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 BA in Biology 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>Junior Year</b>	<b>F</b>	<b>W</b>	<b>S</b>
Systems Physiology	5	-	-
Introduction to Research Methods I,II	-	2	2
Cell & Molecular Biology	-	4	-
Science Seminar	-	.5	-
Genetics	-	-	4
Organic Chemistry	4	4	4
Upper-Division Electives	3	-	-
General Education/Electives	5	7	7
	<b>17</b>	<b>17.5</b>	<b>17</b>

<b>Senior Year</b>	<b>F</b>	<b>W</b>	<b>S</b>
Ecology	4	-	-
Biology Seminar	-	.5	-
Philosophy of Origins	-	3	-
Biology Electives	3	3	3
Senior Assessment Seminar	-	-	.2
Upper-Division Electives	6	5	8
General Education/Electives	5	6	6
	<b>17</b>	<b>17.5</b>	<b>17.2</b>