

Name: \_\_\_\_\_  
 Plan: Environmental Biology, B.S.  
 SubPlan/Option: \_\_\_\_\_  
 Min. Units Required: **120 units**

**Major Required Core 61-62 units**

BIO1210 - Foundations of Biology: Energy, Matter, and Information (3) (B2)  
 BIO1210L - Foundations of Biology: Energy, Matter, and Information Laboratory (1) (B3)  
 BIO1220 - Foundations of Biology: Evolution, Ecology, and Biodiversity (3)  
 BIO1220L - Foundations of Biology: Evolution, Ecology, and Biodiversity Laboratory (1)  
 BIO2110L - Biostatistics Laboratory (1)  
 BIO2400 - Genetics (3)

BIO3040 - Environment and Society (3) (B5) or  
 BIO3120 - Biodiversity Conservation (3) (B5)

BIO3240 - Principles of Evolution (3)  
 BIO3250 - Principles of Ecology (3)  
 BIO3250L - Ecology Laboratory (1)

BIO4410 - Internship in Biology (1-2) (1-unit required) or  
 BIO4610 - Undergraduate Research (1)

CHM1210 - General Chemistry I (3) (B1)  
 CHM1210L - General Chemistry Laboratory I (1) (B3)  
 CHM1220 - General Chemistry II (3) (B1)  
 CHM1220L - General Chemistry Laboratory II (1) (B3)

CHM2010 - Elements of Organic Chemistry (3) and  
 CHM2010L - Elements of Organic Chemistry Laboratory (1)  
 OR  
 CHM3140 - Organic Chemistry I (4) and  
 CHM3140L - Organic Chemistry Laboratory I (1)

ENG1101 - Stretch Composition II (3) (A2) or  
 ENG1103 - First Year Composition (3) (A2)

ENG2105 - Written Reasoning (3) (A3)

NTR2030 - Health, Nutrition and the Integrated Being (3) (E)  
 OR  
 PSY2201 - Introduction to Psychology (3) (E)  
 OR

SCI1010 - Science and Mathematics: Freshman Experience I (1) (E) and  
 SCI1010A - Science and Mathematics: Freshman Experience I Activity (1) (E) and  
 SCI1020A - Science and Mathematics: Freshman Experience II Activity (1) (E)

MAT1200 - Calculus for Life Sciences (3) (B4)  
 PHY1210 - Physics of Motion, Fluids, and Heat (3) (B1)  
 PHY1210L - Physics of Motion, Fluids, and Heat Laboratory (1)  
 PHY1220 - Physics of Electromagnetism, Circuits, and Light (3)  
 PHY1220L - Electromagnetism, Circuits, and Light Laboratory (1) (B3)  
 RS3020 - Global Regenerative Systems (3) (D4)  
 STA1300 - Biostatistics (3) (B4)

**Major Electives 32-34 units**

Select a minimum of 7 units from the list below:

CHM3150 - Organic Chemistry II (3)  
 CHM3150L - Organic Chemistry Laboratory II (1)  
 CHM3270 - Biochemistry I (3)  
 CHM3270L - Biochemistry Laboratory I (1)  
 GEO2400 - Geographic Information Systems (2)  
 GEO2400L - Geographic Information Systems Laboratory (1)  
 GSC1110 - Principles of Geology (3) (B1)  
 GSC1100 - Water in a Changing World (3) (B1)  
 PLT2310 - Basic Soil Science (2)  
 PLT2310L - Basic Soil Science Laboratory (1)

Select two (8 units) of the following three sets of courses:

BIO2050 - Form and Function in Plants (3) and  
 BIO2050L - Form and Function in Plants Laboratory (1)

BIO2060 - Basic Microbiology (3) and  
 BIO2060L - Basic Microbiology Laboratory (1)

BIO2070 - Animal Biology (3) and  
 BIO2070L - Animal Biology Laboratory (1)

Select 17-19 units from the list of approved elective courses according to the Emphasis of interest. At least 10 units must be taken at the 4000 or 5000 level. Up to 2 units of BIO 4410 and/or BIO 4610 and one unit of BIO 4620 may count towards core electives.

**Ecology Conservation and Biodiversity (ECB) Emphasis**

**Recommended Electives:**

BIO3120 - Biodiversity Conservation (3) (B5)  
 GEO2400 - Geographic Information Systems (2)  
 GEO2400L - Geographic Information Systems Laboratory (1)  
 GSC1100 - Water in a Changing World (3)  
 GSC1110 - Principles of Geology (3) (B1)

**Upper Division Electives:**

BIO3040 - Environment and Society (3) (B5)  
 BIO3130 - Marine Biology (3) (B5)  
 BIO3220 - Cell and Molecular Biology (3)  
 BIO3500 - California Flora (1)  
 BIO3500L - California Flora Laboratory (1)  
 BIO4080 - Water Pollution Biology (3)  
 BIO4140 - Biology of Species Invasions (2)  
 BIO4180 - Marine Ecology (3)  
 BIO4180L - Marine Ecology Laboratory (1)  
 BIO4480 - Plant Physiology (3)  
 BIO4480L - Plant Physiology Laboratory (1)  
 BIO4490 - Marine Botany (2)  
 BIO4490L - Marine Botany Laboratory (2)  
 BIO4520 - Evolution of Plants (3)  
 BIO4520L - Evolution of Plants Laboratory (1)  
 BIO4570 - Plants and the Environment (2)  
 BIO4570L - Plants and the Environment Laboratory (2)  
 BIO4800 - Entomology (2)  
 BIO4800L - Entomology Laboratory (2)  
 BIO4820 - Biology of Fishes (2)  
 BIO4820L - Biology of Fishes Laboratory (2)  
 BIO4840 - Herpetology (2)  
 BIO4840L - Herpetology Laboratory (2)  
 BIO5280 - Community Ecology (3)  
 BIO5400 - Biogeography (3)

CHM3270 - Biochemistry I (3) and  
 CHM3270L - Biochemistry Laboratory I (1)  
 OR  
 CHM3280 - Biochemistry II (3) and  
 CHM3280L - Biochemistry Laboratory II (1)

GEO4100 - Remote Sensing of the Environment (2)  
 GEO4100L - Remote Sensing of the Environment Laboratory (1)  
 GEO4450 - Environmental Modeling with GIS (2)  
 GEO4450L - Environmental Modeling with GIS Laboratory (1)  
 GSC3230 - Geomorphology (2)  
 GSC3230L - Geomorphology Laboratory (1)  
 PLS3150 - Politics of Public Policy (3)  
 RS3010 - Life Support Processes (3) (B5)  
 RS3030 - Organization for Regenerative Practices (3) (C3 or D4)

**Environmental Microbiology (EM) Emphasis**

**Recommended Electives:**

BIO2060 - Basic Microbiology (3)  
 BIO2060L - Basic Microbiology Laboratory (1)  
 CHM3150 - Organic Chemistry II (3)  
 CHM3150L - Organic Chemistry Laboratory II (1)

**Upper Division Electives:**

BIO3040 - Environment and Society (3) (B5) or  
 BIO3120 - Biodiversity Conservation (3) (B5)

BIO3220 - Cell and Molecular Biology (3)  
 BIO3600 - General Epidemiology (3)  
 BIO3620 - Applied Microbiology (2)

**General Education Requirements 48 Units**

Students should consult the Academic Programs website

<https://www.cpp.edu/~academic-programs/general-education-course-listings.shtml>

for current information regarding this requirement. Unless specific courses are required, please refer to the list of approved courses under General Education Requirements, Areas A through E.

**Area A. English Language Communication and Critical Thinking (9 units)**

1. Oral Communication
2. Written Communication
3. Critical Thinking

**Area B. Scientific Inquiry and Quantitative Reasoning (12 units)**

1. Physical Sciences
2. Life Sciences
3. Laboratory Activity
4. Mathematics/Quantitative Reasoning
5. Science and Technology Synthesis

**Area C. Arts and Humanities (12 units)**

1. Visual and Performing Arts
- 2a. Philosophy and Civilization
- 2b. Literature and Language Other than English
3. Arts and Humanities Synthesis

**Area D. Social Sciences (12 units)**

1. U.S. History and American Ideals
2. U.S. Constitution and California Government
3. Social Sciences: Principles, Methodologies, Value Systems, and Ethics
4. Social Science Synthesis

**Area E. Lifelong Learning and Self-Development (3 units)**

**Interdisciplinary General Education 21 Units**

An alternate pattern for partial fulfillment of GE Areas A, C, and D available for students is the Interdisciplinary General Education (IGE) program. Students should see an advisor for specific GE coursework required by their major. Please refer to the University Catalog General Education Program section for additional information.

**How IGE fulfills General Education Requirements:**

Year	Completion of IGE Courses	Satisfies GE Requirements
Freshman	IGE 1100, IGE 1200	A2 and C2b
Sophomore	IGE 2100, IGE 2200	C1 and C2a
Junior	IGE 2300, IGE 2400	D1 and D3
Senior	IGE 3100	C3 or D4

**American Institutions 6 Units**

Courses that satisfy this requirement may also satisfy GE Area D1 and D2.

**American Cultural Perspectives Requirement 3 Units**

Refer to the University Catalog General Education Program section for a list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.

**Graduation Writing Test**

All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the semester following completion of 60 units for undergraduates.

# CAL POLY POMONA

Name: \_\_\_\_\_

Plan: \_\_\_\_\_

**Environmental Biology, B.S.**

SubPlan/Option: \_\_\_\_\_

Min. Units Required: **120 units**

**2018-2019 University Catalog  
Degree Curriculum Sheet**

BIO3620L - Applied Microbiology Laboratory (1)  
BIO4080 - Water Pollution Biology (3)  
BIO4400 - Stem Cell Biology (3)  
BIO4635 - Medical Microbiology (3)  
BIO4635L - Medical Microbiology Laboratory (1)  
BIO4660 - Microbial Physiology (3)  
BIO4660L - Microbial Physiology Laboratory (1)  
BIO4680 - Microbial Ecology (2)  
BIO4680L - Microbial Ecology Laboratory (1)  
CE3201 - Environmental Engineering (3)  
CE3201L - Environmental Engineering Laboratory (1)

CHM3270 - Biochemistry I (3) and  
CHM3270L - Biochemistry Laboratory I (1)

OR

CHM3280 - Biochemistry II (3) and  
CHM3280L - Biochemistry Laboratory II (1)

CHM4600 - Air Pollution Problems (2)  
GEO4130 - Environmental Law (3)  
PLT3030 - Pesticide Laws and Regulations (2)  
PLT3340 - Soil Resource Management and Conservation (2)  
PLT3340L - Soil Resource Management and Conservation Laboratory (1)  
PLT4110 - Environmental Toxicology (3)  
PLT4310 - Soil Chemistry (2)  
PLT4310L - Soil Chemistry Laboratory (1)

## **Unrestricted Electives**

**0-3 units**

Select a sufficient number of courses so that the total from "Required Major Core", Major Electives", "GE", and "Unrestricted Electives" is at least 120 units.