



**California State Polytechnic University, Pomona  
Degree Curriculum Sheet**

Plan (Major) ENVIRONMENTAL BIOLOGY  
Subplan/Option \_\_\_\_\_

Catalog Year 2009-2010  
Minimum Units Required 180

Name \_\_\_\_\_  
Student ID \_\_\_\_\_

Evaluator \_\_\_\_\_  
GWT Satisfied \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

Required Core Courses		
Course		Units
Foundations of Biology/Lab	BIO 122/122L	3/2
Foundations of Biology/Lab	BIO 123/123L	3/2
Form and Function in Plants/Lab	BOT 201/201L	3/2
Animal Biology/Lab	ZOO 201/201L	3/2
Biometrics/Lab	BIO 211/211L	3/1
Genetics	BIO 303	4
Principles of Ecology/Lab	BIO 325/325L	3/1
Principles of Evolution	BIO 413	4
Internship in Biology	BIO 441	2
or Undergraduate Research	BIO 461	(2)
<b>Total Units</b>		<b>38</b>

Elective Core Courses	
Course	Units
Upper Division Elective Core Courses	29
At least 18 units from one cluster and 11 additional units taken from one or both of the other two clusters. At least 15 units must be taken at the 400 or 500 level. See "Upper-Division Course Clusters" listed on the back of this sheet.	
<b>Total Units</b>	<b>29</b>

Required Support Courses		
Course		Units
<b>Support Courses for Cluster 1 and 2</b>		
Foundations of Biology/Lab (B2, B3)	BIO 121/121L	3/2
Biodiversity Conservation	BIO 340	4
General Chemistry/Lab (B1, B3)	CHM 121/121L	3/1
General Chemistry/Lab	CHM 122/122L	3/1
General Chemistry/Lab	CHM 123/123L	3/1
Organic Chemistry/Lab	CHM 201/250L	3/1
Elements of Biochemistry/Lab	CHM 321/321L	3/1
Geographic Information Systems/Lab	GEO 240/240A	3/1
Environmental Modeling with GIS/Lab	GEO 445/445A	3/1
Principles of Geology	GSC 111	4
College Physics/Lab	PHY 121/121L	3/1
College Physics/Lab	PHY 122/122L	3/1
Basic Soil Science/Lab	PLT 231/231L	3/1
Freshman English I (A2)	ENG 104	4
Freshman English II (A3)	ENG 105	4
Calculus for the Life Sciences (B4)	MAT 120	4
Environment and Society (B5)	BIO 304	4
Principles of Economics (D2)	EC 201 or EC 202	4
Global Regenerative Systems (D4)	RS 302	4
<b>Support Courses for Cluster 3</b>		
Foundations of Biology/Lab (B2, B3)	BIO 121/121L	3/2
General Chemistry/Lab (B1, B3)	CHM 121/121L	3/1
General Chemistry/Lab	CHM 122/122L	3/1
General Chemistry/Lab	CHM 123/123L	3/1
Organic Chemistry/Lab	CHM 314/317L	3/1
Organic Chemistry/Lab	CHM 315/318L	3/1
Organic Chemistry	CHM 316	3
Biochemistry/Lab	CHM 327/321L	3/1
Biochemistry/Lab	CHM 328/328L	3/1
Basic Microbiology/Lab	MIC 201/201L	3/2
College Physics/Lab	PHY 121/121L	3/1
College Physics/Lab	PHY 122/122L	3/1
Basic Soil Science/Lab	PLT 231/231L	3/1
Freshman English I (A2)	ENG 104	4
Freshman English II (A3)	ENG 105	4
Calculus for the Life Sciences (B4)	MAT 120	4
Environment and Society (B5)	BIO 304	4
Principles of Economics (D2)	EC 201 or 202	4
Global Regenerative Systems (D4)	RS 302	4
<b>Total Units</b>		<b>77</b>

General Education Requirements	
Area	Units
<b>Area A Communication &amp; Critical Thinking</b>	<b>12</b>
1 Oral Communication	
2 Written Communication	
3 Critical Thinking	
<b>Area B Mathematics &amp; Natural Sciences</b>	<b>16</b>
<i>Select at least one lab course from sub-area 1 or 2.</i>	
1 Physical Science	
2 Biological Science	
3 Laboratory Activity	
4 Math/Quantitative Reasoning	
5 Science & Technology Synthesis	
<b>Area C Humanities</b>	<b>16</b>
1 Visual and Performing Arts	
2 Philosophy and Civilization	
3 Literature and Foreign Language	
4 Humanities Synthesis	
<b>Area D Social Sciences</b>	<b>20</b>
1 U.S. History, Constitution, American Ideals	
2 History, Economics and Political Science	
3 Sociology, Anthropology, Ethnic & Gender Studies	
4 Social Science Synthesis	
<b>Area E Lifelong Understanding &amp; Self Development</b>	<b>4</b>
<b>Total Units</b>	<b>68</b>

American Institutions	Units
Courses that satisfy this requirement may also satisfy G.E. Area D1	8

American Cultural Perspectives Requirement	Units
Refer to catalog for list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.	4

The following required support courses should be taken to satisfy the indicated GE Requirements to achieve the minimum units to degree listed at the top of this sheet.

Course		GE Area
Freshman English I	ENG 104	A2
Freshman English II	ENG 105	A3
General Chemistry/Lab	CHM 121/121L	B1, B3
Foundations of Biology/Lab	BIO 121/121L	B2, B3
Calculus for the Life Sciences	MAT 120	B4
Environment and Society	BIO 304	B5
Principles of Economics	EC 201 or 202	D2
Global Regenerative Systems	RS 302	D4

The remaining GE requirements may be satisfied by any course approved for that area.

No more than 105 community college quarter units or 36 extension credit quarter units may be applied toward a Bachelor's degree.

A minimum 2.0 cumulative GPA is required in core (including option) courses, Cal Poly Pomona courses, and overall work completed in order to receive a degree in this major.

**Cluster 1 - Conservation Biology**

Insect Taxonomy	PLT 402/402L	2/2
Marine Biology	BIO 330/330L	3/2
Biological Systematics	BIO 406	3
Biology of Ants	BIO 407/407L	3/2
Field Studies in the Southwest	BIO 415L	4
Field Studies in Baja California	BIO 416L	4
Population Ecology	BIO 418	3
Population Genetics	BIO 445/445L	3/1
Mechanisms of Speciation*	BIO 530	3
California Flora	BOT 343/343L	1/2
Evolution of Plants	BOT 434/434L	3/2
Environmental Factors in Regional Planning	URP 487	4
Ornithology	ZOO 329/329L	2/1
Introduction to Entomology	ZOO 426/426L	3/1
Herpetology	ZOO 429/429L	2/2
Mammalogy	ZOO 430/430L	2/2
Ichthyology	ZOO 441/441L	2/2
Native Plant Materials	PLT 337/337L	2/1

**Cluster 2 - Ecosystem Ecology and Management**

Environmentally Sustainable Agriculture	PLT 437/437L	3/1
Chaparral Biology	BIO 425/425L	3/1
Marine Ecology	BIO 442/442L	3/2
Tropical Biology	BIO 485	3
Ecology of Fungi*	BIO 525/525L	2/2
Community Analysis*	BIO 527/527L	3/1
Community Ecology*	BIO 528	3
Tropical Field Biology*	BIO 532L	2-6
Biogeography*	BIO 540	3
Wildlife Ecology*	BIO 575/542L	2/1
General Plant Pathology	BOT 323/323L	2/2
Plant Ecology	BOT 421/421L	3/1
Plant Physiology	BOT 428/428L	3/2
General Systems Theory: Hierarchies	CSA 411/411A	3/1
Gen. Systems Theory: Testing Hypotheses	CSA 412/412A	3/1
Gen. Systems Theory: Man-Made Systems	CSA 413/413A	3/1
Applied Ecosystems Engineering	CSA 470	4
Photographic Remote Sensing	GEO 410	4
Digital Image Processing	GEO 420	4
Applied Geomorphology	GSC 323/323L	3/1
Politics of Public Policy	PLS 315	4
Life Support Processes	RS 301	4
Shaping a Sustainable Future	RS 303	4
Soil Resource Mgmt and Conservation	PLT 334/334L	3/1

**Cluster 3 - Environmental Microbiology and Biotechnology**

Pesticide and Hazardous Material Laws	PLT 303	3
Environmental Toxicology	PLT 411	4
Aquatic Ecology for Environmental Engineers	BIO 305	4
Cell and Molecular Biology	BIO 310	4
Water Pollution Biology	BIO 420	3
Radiation Biology	BIO 431/431L	3/1
Mycology	BOT 425/425L	2/2
Mycology	BOT 426/426L	2/2
Environmental Resource Mgmt and Lab	CE 351/351L	3/1
Biochemistry/Lab	CHM 329/329L	3/1
Air Pollution Problems	CHM 460	3
Systems Law and Legislation	CSA 340/340L	2/2
Environmental Law	GEO 413	4
Applied Microbiology	MIC 310/310L	3/2
General Epidemiology	MIC 330	4
Medical Bacteriology	MIC 410/410L	3/2
Microbial Physiology	MIC 428/428L	3/2
Soil Chemistry	PLT 431/431L	3/1
Soil Physics	PLT 432/432L	3/1

\*500-level courses. A total of no more than 13 units may be used for undergraduate credit. The student must have senior standing and at least a 2.75 upper-division GPA. A special petition must be filed to receive undergraduate credit for graduate courses.