



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

Plan (Major) ENVIRONMENTAL BIOLOGY
Subplan/Option _____

Catalog Year 2013-2014
Minimum Units Required 180

Name _____
Student ID _____

TGA _____
GWT Satisfied _____ Yes _____ No

Required Core Courses		
Course		Units
Foundations of Biology	BIO 122/122L	3/2
Foundations of Biology	BIO 123/123L	3/2
Form and Function in Plants	BOT 201/201L	3/1
Animal Biology	ZOO 201/201L	3/2
Biometrics	BIO 211/211L	3/1
Genetics	BIO 303	4
Principles of Ecology	BIO 325/325L	3/1
Principles of Evolution	BIO 413	4
Internship in Biology or Undergraduate Research	BIO 441 BIO 461	2 (2)
Total Units		37

Elective Core Courses	
Course	Units
Upper Division Elective Core Courses	30
At least 18 units from the primary cluster and the remaining 12 units from any of the three 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.	
Total Units	30

Required Support Courses		
Course		Units
Support Courses for Cluster 1 and 2		
Foundations of Biology (B2, B3)	BIO 121/121L	3/2
Environment and Society (B5)	BIO 304	4
Biodiversity Conservation	BIO 340	4
General Chemistry (B1, B3)	CHM 121/121L	3/1
General Chemistry	CHM 122/122L	3/1
General Chemistry	CHM 123/123L	3/1
Organic Chemistry	CHM 201/250L	3/1
Elements of Biochemistry	CHM 321/321L	3/1
Freshman English I (A2)	ENG 104	4
Freshman English II (A3)	ENG 105	4
Geographic Information Systems	GEO 240/240A	3/1
Environmental Modeling with GIS	GEO 445/445A	3/1
Principles of Geology	GSC 111	4
Calculus for the Life Sciences (B4)	MAT 120	4
College Physics	PHY 121/121L	3/1
College Physics	PHY 122/122L	3/1
Basic Soil Science	PLT 231/231L	3/1
Global Regenerative Systems (D4)	RS 302	4
Support Courses for Cluster 3		
Foundations of Biology (B2, B3)	BIO 121/121L	3/2
Environment and Society (B5)	BIO 304	4
General Chemistry (B1, B3)	CHM 121/121L	3/1
General Chemistry	CHM 122/122L	3/1
General Chemistry	CHM 123/123L	3/1
Organic Chemistry	CHM 314/317L	3/1
Organic Chemistry	CHM 315/318L	3/1
Organic Chemistry	CHM 316	3
Biochemistry	CHM 327/327L	3/1
Biochemistry	CHM 328/328L	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
Basic Microbiology	MIC 201/201L	3/1
College Physics	PHY 121/121L	3/1
College Physics	PHY 122/122L	3/1
Basic Soil Science	PLT 231/231L	3/1
Global Regenerative Systems (D4)	RS 302	4
Total Units		72-73

Unrestricted Electives	
Course	Units
Unrestricted Electives	
Select a sufficient number of courses so that the total from "Required Support", "GE", and "Unrestricted Electives" is at least 113 units.	0-1
Total Units	0-1

General Education Requirements		
Area		Units
Area A Communication & Critical Thinking		12
1 Oral Communication		
2 Written Communication		
3 Critical Thinking		
Area B Mathematics & Natural Sciences		16
<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		
Area C Humanities		16
1 Visual and Performing Arts		
2 Philosophy and Civilization		
3 Literature and Foreign Language		
4 Humanities Synthesis		
Area D Social Sciences		20
1 U.S. History, Constitution, American Ideals		
2 History, Economics and Political Science		
3 Sociology, Anthropology, Ethnic & Gender Studies		
4 Social Science Synthesis		
Area E Lifelong Understanding & Self Development		4
Total Units		68

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

American Cultural Perspectives Requirement	
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	CHM 121/121L	B1, B3
Foundations of Biology	BIO 121/121L	B2, B3
Calculus for the Life Sciences	MAT 120	B4
Environment and Society	BIO 304	B5
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

Marine Biology	BIO 330	3
Population Ecology	BIO 418	3
Biology of Species Invasions	BIO 464	3
California Flora	BOT 343/343L	1/2
Evolution of Plants	BOT 434/434L	3/2
Native Plant Materials	PLT 337/337L	2/1
Insect Taxonomy	PLT 402/402L	2/2
Environmental Factors in Regional Planning	URP 487	4
Entomology	ZOO 426/426L	3/1
Herpetology	ZOO 429/429L	2/2
Mammalogy	ZOO 430/430L	2/2
Ornithology	ZOO 435/435L	3/1
Ichthyology	ZOO 441/441L	2/2

Cluster 2 - Ecosystem Ecology and Management

Marine Ecology	BIO 442/442L	3/2
Community Analysis*	BIO 527/527L	3/1
Community Ecology*	BIO 528	3
Plant Ecology	BOT 421/421L	3/1
Plant Physiology	BOT 428/428L	4/1
Photographic Remote Sensing	GEO 410	4
Digital Image Processing	GEO 420	4
Applied Geomorphology	GSC 323/323L	3/1
Microbial Ecology	MIC 435/435L	2/2
Plant-Microbe Interactions	MIC 436/436L	2/2
Politics of Public Policy	PLS 315	4
Soil Resource Mgmt and Conservation	PLT 334/334L	3/1
Environmentally Sustainable Agriculture	PLT 437/437L	3/1
Life Support Processes	RS 301	4
Shaping a Sustainable Future	RS 303	4

Cluster 3 - Environmental Microbiology and Biotechnology

Cell and Molecular Biology	BIO 310	4
Water Pollution Biology	BIO 420	3
Radiation Biology	BIO 431/431L	3/1
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	4/1
Pesticide and Hazardous Material Laws	PLT 303	3
Environmental Toxicology	PLT 411	4
Soil Chemistry	PLT 431/431L	3/1
Soil Physics	PLT 432/432L	3/1

In addition, up to 4 units of BIO 441 and/or BIO 461 and 2 units of BIO 462 may count towards core electives.

*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.