



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

Plan (Major) **ENVIRONMENTAL BIOLOGY**
Subplan/Option _____

Catalog Year **2014 - 2015**
Minimum Units Required **180**

Name _____
Student ID _____

Required Core Courses		
Course		Units
Foundations of Biology : Reproduction and Development & Lab	BIO 122/122L	3/2
Foundations of Biology: Biodiversity & Lab	BIO 123/123L	3/2
Form and Function in Plants & Lab	BOT 201/201L	3/1
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 or Undergraduate Research	BIO 441 BIO 461	1-2 (2)
Total Units		37

Elective Core Courses	
Course	Units
At least 18 units from the primary cluster and the remaining 12 units from any of the three clusters (totaling to the required 30 units for Elective core Courses). 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.	30
Total Units	30

Required Support Courses		
Course		Units
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.		
<i>Support Courses for Clusters 1 and 2:</i>		
Foundations of Biology: Energy and Matter Cycles and Flows & Lab (B2, B3)	BIO 121/121L	3/2
Environment and Society (B5)	BIO 304	4
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
Elements of Organic Chemistry & Lab	CHM 201/250L	3/1
Elements of Biochemistry & Lab	CHM 321/321L	3/1
Freshman English II (A3)	ENG 105	4
Continue next column		

Required Support Courses		
Course		Units
Stretch Composition III (A2)	ENG 107	4
or Advanced Stretch Composition II (A2)	ENG 109	(4)
or First-Year Composition (A2)	ENG 110	(4)
Intro to 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 & Lab	PHY 121/121L	3/1
College Physics & Lab	PHY 122/122L	3/1
Basic Soil Science	PLT 231/231L	3/1
Global Regenerative Systems (D4)	RS 302	4
<i>Support Courses for Cluster 3:</i>		
Foundations of Biology: Energy and Matter Cycles and Flows & Lab (B2, B3)	BIO 121/121L	3/2
Environment and Society (B5)	BIO 304	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 314/317L	3/1
Organic Chemistry & Lab	CHM 315/318L	3/1
Organic Chemistry	CHM 316	3
Biochemistry & Lab	CHM 327/327L	3/1
Biochemistry & Lab	CHM 328/328L	3/1
Freshman English II (A3)	ENG 105	4
or Critical Thinking (A3)	PHL 202	(4)
Stretch Composition III (A2)	ENG 107	4
or Advanced Stretch Composition II (A2)	ENG 109	(4)
or First-Year Composition (A2)	ENG 110	(4)
Calculus for the Life Sciences (B4)	MAT 120	4
Basic Microbiology	MIC 201/201L	3/1
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
Global Regenerative Systems (D4)	RS 302	4
Total Units		72-73

Unrestricted Electives	
Course	Units
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 subarea 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	
a. United States History	
b. Introduction to American Government	
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 GE 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

All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the quarter following completion of 120 units for undergraduates.

Cluster 1 - Conservation Biology

Marine Biology	BIO 330	3/1
Population Ecology	BIO 418	3
Biology of Species Invasions	BIO 464	3
California Flora	BOT 343/343L	1/2
Marine Botany	BOT 433/433L	2/2
Evolution of Plants	BOT 434/434L	3/2
Native Plant Materials	PLT 337/337L	2/1
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 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
Stem Cell Biology & Lab	BIO 465/465L	3/1
Environmental Engineering	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

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
Digital Image Processing	GEO 420	4
Photographic Remote Sensing	GEO 410	4
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
Environmental Sustainable Agriculture	PLT 437/437L	3/1
Life Support Processes	RS 301	4
Organization for Regenerative Practices	RS 303	4

In addition:

Up to 4 units of BIO 441 and/or BIO 461 and 2 units of BIO 462 may count towards core electives.

Note:

*500-level courses. No more than 13 units may be counted toward an undergraduate degree.

Students must have a 2.75 GPA, have senior standing, and file a special petition to receive undergraduate (or graduate) credit for graduate courses taken as a senior.