

**California University of PA**  
**Eberly College of Science and Technology**  
**Department of Biological and Environmental Sciences**  
**Bachelor of Science in Environmental Studies (120 credits)**  
**Fisheries and Wildlife Concentration**

Name \_\_\_\_\_

Student ID Number \_\_\_\_\_

**General Education (51 credits)**

	Crs	Grade
<b><u>Building a Sense of Community – 1 credit</u></b>		
UNI 100 First Year Seminar	1	_____

<b><u>Critical Thinking Skills – 3 credits</u></b>		
_____	3	_____

<b><u>Communication Skills – 6 credits</u></b>		
ENG 101 Composition I	3	_____
ENG 102 Composition II	3	_____

<b><u>Public Speaking – 3 credits</u></b>		
COM 101 Oral Communication*	3	_____

<b><u>Mathematics – 3 credits</u></b>		
MAT 181 College Algebra <b>OR</b> MAT 281		
Calculus I <sup>G</sup> <b>OR</b> MAT 273 Basic Calculus <sup>G</sup>	3	_____

<b><u>Natural Sciences – 8 credits</u></b>		
CHE 101 General Chemistry I*	4	_____
CHE 102 General Chemistry II*	4	_____

<b><u>Social Sciences – 6 credits</u></b>		
_____	3	_____
_____	3	_____

<b><u>Humanities and Fine Arts – 6 credits</u></b>		
_____	3	_____
_____	3	_____

<b><u>Multicultural Awareness – 3 credits</u></b>		
_____	3	_____

<b><u>Values – 3 credits</u></b>		
_____	3	_____

<b><u>Technological Literacy – 6 credits</u></b>		
CSC 101 Personal Productivity Software*		
<b>OR</b> CSC 201 Windows and Internet*	3	_____
GIS 311 Geographic Information Systems	3	_____

<b><u>Health and Wellness – 3 credits</u></b>		
_____	3	_____

<b><u>Writing Component Courses (two courses required)</u></b>		
_____		
_____		

<sup>W</sup> To be certified as a Wildlife/Fisheries biologist requires some additional coursework – see advisor

**Major (58/59 credits)**

**Required Courses:**

	Crs	Grade
<b><u>Biology Core (30 credits)</u></b>		
BIO 120 General Zoology	4	_____
BIO 125 General Botany	4	_____
BIO 215 Cellular and Molecular Biology	4	_____
BIO 248 General Ecology	4	_____
BIO 318 Genetics	4	_____
BIO 336 Plant Taxonomy <b>OR</b>	4	_____
BIO 442 Dendrology and Forest Ecology <sup>W</sup>		
MAT 215 Statistics	3	_____
ENS 495 Exp. Design and Analysis	3	_____

<b><u>Physical Science Core (3/4 credits)</u></b>		
Electives (PHS 137, CHE 331 <sup>G</sup> , PHY 121 <sup>G</sup> , EAS 202, or EAS 150 (choose one))	3/4	_____

<b><u>Fisheries and Wildlife Management (14 credits)</u></b>		
ENS 420 Prin. of Wildlife Mgmt	3	_____
ENS 423 Wildlife Mgmt Techniques <b>OR</b>	4	_____
ENS 424 Fisheries Mgmt		
ENS 399 Conservation Biology <b>OR</b>	3	_____
ENS 425 Prin. of Aquaculture		
ENS 492 Animal Population Dynamics	4	_____

<b><u>Fisheries and Wildlife Biology (8 credits)</u></b>		
BIO 337 Ornithology	4	_____
BIO 400 Mammalogy	4	_____
BIO 433 Herpetology	4	_____
BIO 435 Ichthyology	4	_____
BIO 441 Ethology	4	_____
BIO 445 Entomology	4	_____
BIO 488 Water Pollution Biology	4	_____

<b><u>Law Policy and Planning (3 credits)</u></b>		
ENS 435 Natural Resource Law and Policy	3	_____
GIS 413 Environmental App. in GIS	3	_____
REC 362 Site Planning and Design	3	_____
REC 365 Recreation Resource Mgmt	3	_____

<b><u>Unrestricted electives – (10/11 credits)</u></b>		
_____	_____	_____
_____	_____	_____
_____	_____	_____

**\*Required Courses:** If these courses are not taken as part of the student's general education, they should be completed as electives.

<sup>G</sup> Courses recommended if student wishes to pursue graduate school

UCC approval date: 3/22/2010

**Bachelor of Science in Environmental Studies  
Fisheries and Wildlife Biology Concentration  
Recommended Course of Study**

Course #	Title	Credits	Course #	Title	Credits
<b>Freshman 1<sup>st</sup> Semester</b>			<b>Freshman 2<sup>nd</sup> Semester</b>		
BIO 120	General Zoology OR		BIO 125	General Botany OR	
	125 General Botany	4		120 General Zoology	4
CHE 101	General Chemistry I	4	CHE 102	General Chemistry II	4
ENG 101	English Composition I	3	ENG 102	English Composition II	3
UNI 100	First Year Seminar	1	Physical Science Requirement		<u>3/4</u>
General Education Course		<u>3</u>			
TOTAL CREDITS		15	TOTAL CREDITS		14/15
<b>Sophomore 1<sup>st</sup> Semester</b>			<b>Sophomore 2<sup>nd</sup> Semester</b>		
BIO 215	Cell. & Molecular Bio. OR		BIO 215	Cell. & Molecular Bio. OR	
	248 General Ecology	4		248 General Ecology	4
MAT 181 or 273 or 281		3	BIO 318	Genetics	4
COM 101	Oral Communications	3	General Education Courses		<u>9</u>
General Education Courses		<u>6</u>			
TOTAL CREDITS		16	TOTAL CREDITS		17
<b>Junior 1<sup>st</sup> Semester</b>			<b>Junior 2<sup>nd</sup> Semester</b>		
ENS 423	Wildlife Techniques OR		ENS 420	Principles of Wild. Manage.	3
	424 Fisheries Management	4	ENS 399	Con. Bio OR	
Fisheries or Wildlife Biology course		4		425 Princ. Of Aquaculture	3
GIS 311	Geog. Info. Systems	3	Unrestricted Free Electives		3
MAT 215	Statistics	<u>3</u>	General Education Courses		<u>6</u>
TOTAL CREDITS		14	TOTAL CREDITS		15
<b>Senior 1<sup>st</sup> Semester</b>			<b>Senior 2<sup>nd</sup> Semester</b>		
BIO 336	Plant Taxonomy OR		ENS 492	Animal Population Dynamics	4
	442 Forest Eco. & Dendro	4	General Education Courses		3
ENS 495	Design and Analysis	3	Unrestricted Free Electives		<u>7/8</u>
Law Policy and Planning Course		3			
Fisheries or Wildlife Biology course		<u>4</u>			
TOTAL CREDITS		14	TOTAL CREDITS		14/15

**TOTAL CREDITS FOR DEGREE - 120**