

# ENSP – Wildlife Ecology and Management

**Effective -- Fall 2016**

Revised 1.31.17 – ABM

<b>ENSP Core</b>				<b>General Education</b>		
<b>All</b>				<b>Fundamental Studies (15 credits)</b>		
<b>Course</b>	<b>Title</b>	<b>Offered</b>	<b>Grade</b>	<b>Requirements</b>	<b>Course</b>	<b>Cr</b>
ENSP101 (NS) ENSP102 (HS) ENSP400 (SP)	Intro to Env Science Intro to Env Policy Senior Capstone	Fa Sp Fa,Sp		Academic Writing (AW)		3
<b>Applied Science and Policy (one)</b>				<b>Distributive Studies (25 credits)</b>		
ENSP305 ENSP330 ENSP340 ENSP342 ENSP350	Quant. Methods Environmental Law Sci, Ethics, Law: Water Oceans: Integ. Policy Energy & Science	Sp Fa, Sp Fa Sp TBA		<b>Requirements</b>		
<b>Calculus (one)</b>				Natural Sciences w/Lab (NL)	ENSP Lab Sci	4
MATH120 (MA) MATH140 (MA)	Elementary Calculus Calculus I ( <i>recommended</i> )	Fa,Sp,Su Fa,Sp,Su	<b>Grade</b>	Natural Science (NS)	ENSP 101	3
<b>Statistics (one)</b>				History and/or Social Sci (HS1)	ENSP 102	3
BIOM301 (AR) GEOG306 (AR) <i>** recommended</i>	Intro to Biometrics Intro to Quant Methods	Fa,W,Sp Fa,Sp,Su, W	<b>Grade</b>	History and/or Social Sci (HS2)		4
<b>One course from 4 of the 5 groups below:</b>				Humanities (HU1)		3
<b>Biology (req'd)</b>				Humanities (HU2)		3
BSCI160/161 (NL)	Ecology & Evolution/Lab	Fa,Sp,Su	<b>Grade</b>	Scholarship in Practice (SP, major)	ENSP 400	3
<b>Chemistry (req'd)</b>				Scholarship in Practice (SP, non-major)		3
CHEM131/132 (NL)	Gen Chemistry I/Lab	Fa,Sp,Su	<b>Grade</b>	<b>I-Series (6 credits)*</b>		
<b>Earth Sci (req'd)</b>				* May double-count with Distributive Studies		
ENST200 (NL)	Fund of Soil Science	Fa	<b>Grade</b>	<b>Requirements</b>	<b>Course</b>	<b>Cr</b>
<b>Economics (one)</b>				I- Series (IS)		3
AREC240 (HS) AREC241 (HS, IS) ECON200 (HS)	Intro to Econ and Env Env, Econ, and Policy Princ of Microeconomics	Sp Fa Fa,Sp,W		I- Series (IS)		3
<b>Geography (one)</b>				<b>Diversity (4-6 credits)*</b>		
GEOG130 (HS) GEOG140 (IS) GEOG170 (NS) GEOG202 (CC)	Developing Countries Natural Disasters Meth of Geospatial Anal Intro to Human Geog	Fa,Su Fa, Sp Fa Sp		* May double-count with Distributive Studies		
<b>ENSP Graduation Requirements</b>				<b>Requirements</b>	<b>Course</b>	<b>Cr</b>
_____ Students must earn <u>C-</u> or higher in all courses used for ENSP Core and Concentration requirements. _____ Students' major GPA must be 2.0 or higher.				Understanding Plural Societies (UP)		3-6
				Understanding Plural Societies (UP) <i>or</i> Cultural Competency (CC)		0-3
<b>ENSP Graduation Requirements</b>				<b>Experiential Learning (0-3 credits)*</b>		
_____ Up to 6 AP courses <b>may</b> be used for Gen Ed _____ There are <b>at least 40 non-overlapping Gen Ed</b> credits _____ No more than 60 credits earned from Community College _____ Last 30 credits must be earned at Maryland _____ 120+ cumulative credits <i>and</i> 2.0+ cum GPA				* May overlap with major requirements		
				<b>Requirements</b>	<b>Course</b>	<b>Cr</b>
_____ Students must earn <u>C-</u> or higher in all courses used for ENSP Core and Concentration requirements. _____ Students' major GPA must be 2.0 or higher.				Practical experience is <i>required</i> in this concentration		
				<b>Graduation Requirements</b>		

## ENSP – Wildlife Ecology and Management (cont'd)

**REQUIREMENTS (25-26 credits):** Note the 4<sup>th</sup> semester Benchmarks (in red). Wildlife students are strongly encouraged to complete Organic Chem ASAP, even if it means summer school, to ensure smooth academic progress and an on-time graduation.

Course	Description	Cr	Offered	Prerequisites	Grade
BSCI 170/171	Cellular and Molecular Biology	4	F,Sp,Su	Math 220 placement	
ENST 214	Intro to Fish and Wildlife Sciences	3	Sp	BSCI 160/161	
<b>BSCI 222</b>	<b>Principles of Genetics</b>	<b>4</b>	<b>F,Sp,Su</b>	<b>BSCI 170/171, 1 year college chemistry</b>	
<b>CHEM 231/232</b>	<b>Organic Chemistry I (with lab)</b>	<b>3/1</b>	<b>F,Sp,Su</b>	<b>CHEM 131/132</b>	
<b>PHYS 121</b>	<b>Fundamentals of Physics I</b>	<b>4</b>	<b>F,Sp,Su</b>	<b>Math 220 recommended</b>	
BSCI 361	Principles of Ecology	4	F, Sp	BSCI 160/161 and MATH 220	
ENST 460	Principles of Wildlife Management	3	Fa	ENST214	

### INTERNSHIP/RESEARCH (3-6 credits):

Course	Description	Cr	Offered	Prerequisites	Grade
ENSP 386 <i>or</i>	Internship <i>or</i>	3	F,Sp,Su	Approved proposal	
ENSP 499	Honors Thesis Research	6	F,Sp,Su	Permission of advisor	

### RESTRICTED ELECTIVES (21-22 credits, including at least 3 courses and 9 credits each in Area 1 and Area 2).

Other courses may be approved with advisor approval *in advance*. *Count credits carefully to be sure they add up.*

#### >>> Area 1 – Ecological and Taxonomic Dimensions

Course	Description	Cr	Offered	Prerequisites	Grade
BSCI 207	Organismal Biology	3	F, Sp	BSCI 170/171, BSCI 160/161, and CHEM 131/132	
BSCI 334	Mammalogy	3	Sp	BSCI 160/161. Strongly rec. for students interested in grad school or certification as a Wildlife Biologist.	
BSCI 335	Mammalogy Lab	1	Sp		
BSCI 337	Biology of Insects	4	Sp	BSCI 160/161	
BSCI 363	Biology of Conserv and Extinction	3	F	BSCI 160/161	
BSCI 338Q	Conservation Lab	1	Sp	Co-req. BSCI 363	
BSCI360	Principles of Animal Behavior	3	F, Sp	BSCI105, 106, and 222.	
BSCI 370	Evolution	3	Sp, F	BSCI 160/161	
BSCI392	Biology of Extinct Animals	3	F	BSCI 160/161	
BSCI 394	Vertebrate Form and Function	3	Su		
BSCI 442	Plant Physiology	4	Sp	BSCI105 or 106; and CHEM231/232	
PLSC 400	Environmental Plant Physiology	4	Sp	BSCI105 or 106; and CHEM231/232	
BSCI 460	Plant Ecology	3	TBA	BSCI 160/161	
BSCI 462	Population Ecology	3	Sp	BSCI 160/161 and MATH 220	
BSCI 473	Marine Ecology	3	Sp	BSCI 207	
BSCI481	Insect diversity and classification	4	F	BSCI337	
BSCI 494	Animal-Plant Interactions	3	Sp	BSCI 160/161 and BSCI 207	
ENST 450	Wetland Ecology	3	F	BIOM301. Offered in “even” years: 2016, 2018	
GEOL 331	Principles of Paleontology	4	F	GEOL102 or perm.	
PLSC 253	Woody Plant Material I	3	F	PLSC100 or perm. Strongly rec. for students interested in certification as a Wildlife Biologist.	
PLSC 254	Woody Plant Material II	3	Sp	PLSC 100 or BSCI 226	
PLSC 471	Forest Ecology	3	Sp	BSCI 160/161 or PLSC 201	

#### >>> Area 2 – Management.

Course	Description	Cr	Offered	Prerequisites	Grade
ANSC 252	Intro to the Diseases of Wildlife	3	F	BSCI 170/171 or perm.	
ANSC 453	Animal Welfare	3	Sp	BSCI 160/161 or ANSC 101	
ENSP 305	Applied Quant. Analysis	3	Sp	ENSP101 and 102; MATH220 or higher; and Stats.	
ENST333	Ecosystem Health and Protection	3	F	ENST233 and dept. perm.	
GEOG 373	Geographic Information Systems	3	F,W,Sp,Su		
ENST 314	Fisheries Mgmt and Sustainability	3	Sp*	ENST214. Offered Spring of even years (2018, etc)	
ENST 404	Natural Resources & Env Ethics	3	Sp	ENST214. Offered Spring of odd years (2017, etc.)	
ENST 406	Applied Forestry Practices	3	Sp	ENST200 and (BSCI361 or PLSC471)	
ENST 461	Urban Wildlife Management	3	F		
ENST 462	Field Techniques in Wildlife Mgt	3	Sp	ENST460. Note: this is a 2-credit course.	
ENST 479	Tropical Ecol and Resource Mgt	3	Sp	BSCI 160/161. Course has required travel-study.	
ENST489D	Ecol and Mgmt of Wildlife Habitats	3	Sp	GEOG373	
ENST465	Ecol and Mgmt of Wild Hab (Lab)	1	Sp	Co-req: ENST489D	