

# ENSP – Biodiversity & Conservation Biology

Updated 7/12/21 - ABM

Effective Fall 2010, all students must meet LEP requirements to gain admission to ENSP-Biodiversity. Courses indicated in **RED** must be completed *prior to* applying for admission to this concentration. Additional details here: <http://cmns.umd.edu/cmnsmajorchange>

**NOTE: always refer to the Schedule of Classes on Testudo for the most up-to-date information regarding course offerings, prerequisites and restrictions.**

<b>ENSP Core</b>			
Course	Title	Offered	Grade
<b>All three</b> ENSP101 (NS) ENSP102 (HS) ENSP400 (SP)	Intro to Env Science Intro to Env Policy Senior Capstone	Fa Sp Fa,Sp	
<b>Applied Science and Policy (one)</b> ENSP305 ENSP306 ENSP330 ENSP340 ENSP342 ENSP350 ENSP370	Applied Spatial Methods Qual Research/Env Sci Environmental Law Sci, Ethics, Law: Water Oceans: Integ. Policy Energy: Science & Policy Environmental Justice	Sp Fa Fa, Sp Fa Sp TBA Sp	
<b>Calculus (pick one)</b> MATH120 (MA) MATH136 or MATH140 (MA)	Elementary Calculus Calculus for Life Sci. Calculus I <i>(recommended)</i>	Fa,Sp,Su Fa,Sp,Su Fa,Sp,Su	<b>Grade</b>
<b>Statistics (pick one)</b> BIOM301 (AR) GEOG306 (AR) PSYC200 (AR)	Intro to Biometrics Intro to Quant Methods Stat Methods in Psyc	Fa,W,Sp Sp,Su,W Fa,Sp,Su	<b>Grade</b>
<b>*Math LEP requirement can be fulfilled with MATH120, 140 or 135</b>			
<b>Four (4) courses from the 5 groups below:</b>			
<b>Biology (req'd)</b> BSCH160/161 (NL)	Ecology & Evolution/Lab	Fa,Sp,Su	<b>Grade</b>
<b>Chemistry (req'd)</b> CHEM131/132 (NL)	Gen Chemistry I/Lab	Fa,Sp,Su	<b>Grade</b>
<b>Earth Sci (req'd)</b> GEOG201/211 (NL)	Geog Environ Sys/Lab	Fa,Sp,Su	<b>Grade</b>
<b>Economics (pick one)</b> AREC240 (HS) AREC241 (HS, IS) ECON200 (HS)	Intro to Econ and Env Env, Econ, and Policy Princ of Microeconomics	Sp Fa Fa,Sp,W	
<b>Geography (pick one)</b> GEOG130 (HS) GEOG140 (IS) GEOG170 (NS) GEOG202 (CC)	Development Geography Natural Disasters Meth of Geospatial Anal Intro to Human Geog	Fa,Su Fa, Sp Fa Sp	
<b>ENSP Graduation Requirements</b>			
_____ Students must earn <u>C-</u> or <u>higher</u> in all courses used for ENSP Core and Concentration requirements. _____ Students' major GPA must be 2.0 or higher.			

<b>General Education</b>		
<b>Fundamental Studies (15 credits)</b>		
Requirements	Course	Cr
Academic Writing (AW)		3
Professional Writing (PW)		3
Oral Communication (OC)		3
Math (MA)	Calculus	3-4
Analytical Reasoning (AR)	Statistics	
<b>Distributive Studies (25 credits)</b>		
Requirements	Course	Cr
Natural Sciences w/Lab (NL)	ENSP Lab Sci	4
Natural Science (NS)	ENSP 101	3
History and/or Social Sci (HS1)	ENSP 102	3
History and/or Social Sci (HS2)		4
Humanities (HU1)		3
Humanities (HU2)		3
Scholarship in Practice (SP, major)	ENSP 400	3
Scholarship in Practice (SP, non-major)		3
<b>I-Series (6 credits)*</b>		
* May double-count with Distributive Studies		
Requirements	Course	Cr
I- Series (IS)		3
I- Series (IS)		3
<b>Diversity (4-6 credits)*</b>		
* May double-count with Distributive Studies		
Requirements	Course	Cr
Understanding Plural Societies (UP)		3-6
Understanding Plural Societies (UP) <i>or</i> Cultural Competency (CC)		0-3
<b>Experiential Learning (0-3 credits)*</b>		
* May overlap with major requirements		
Requirements	Course	Cr
Practical experience is <i>recommended</i> in this concentration		
<b>Graduation Requirements</b>		
_____ Up to 6 AP courses may be used for Gen Ed _____ 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		

## Biodiversity & Conservation Biology (p-2)

**REQUIREMENTS (9 courses, 32-33 cr):** Students may use BSCI160/161 or BSCI170/171 for LEP admission purposes. For updated LEP requirements, go to: <http://www.lep.umd.edu/cmns-lep.pdf>

Course	Description	Cr	Offered	Prerequisites	Grade
BSCI 170/171	Molecular and Cellular Biol/Lab	4	Sp, F, Su	Placement in MATH 120 or higher.	
BSCI 207	Organismal Biology	3	Sp, F, Su	BSCI160/161, BSCI170/171, CHEM131/132	
BSCI 222	Principles of Genetics	4	Sp, F, W, Su	BSCI160/161, BSCI170/171, 1 yr college chem	
BSCI 361	Principles of Ecology	4	Sp, W, F, Su	BSCI160/161 and Calculus	
BSCI 363	Biology of Cons and Extinction	3	F	BSCI361	
BSCI 370	Principles of Evolution	3	Sp, F	BSCI 160/161, BSCI222	
CHEM 231/232	Organic Chemistry I / Lab	3/1	Sp, F, Su	CHEM 131/132	
CHEM 241/242	Organic Chemistry II / Lab	3/1	Sp, F, Su	CHEM 231/232	
<b>Select one:</b>					
MATH 141	Calculus II	4	Sp, F, Su	MATH 140 or equivalent	—
MATH 121	Elementary Calculus II	3	Sp, F, Su	MATH 120, 130, or 140, or equivalent	—
MATH135	Discrete Math for Life Sciences	4	Sp, F, Su	MATH140 eligibility	—

### RESTRICTED ELECTIVES (5 courses, 15 credits) Must include at least one laboratory (L) course):

Course	Description	Cr	Offered	Prerequisites	Grade
BSCI 334/335	Mammalogy	3/1 (L)	Sp	BSCI 160/161 & BSCI207	
BSCI 337	Biology of Insects	4 (L)	F	BSCI 160/161	
BSCI 338	Special Topics in Biology	1-4	Varies	Varies – Must be approved by advisor	
BSCI 360	Principles of Animal Behavior	3	F, Su	BSCI 160/161, 170/171, and 222	
BSCI 392	Biology of Extinct Animals	3	F	BSCI 160/161 and BSCI 207	
BSCI 393	Biology of Extinct Animals Lab.	1 (L)	F	Pre- or co-requisite: BSCI 392	
BSCI400	Animal Diversity and Evolution	3	F	BSCI160/161, BSCI207	
BSCI 405	Population and Evol. Genetics	3 (L)	F	BSCI222; & (MATH131, MATH136 or MATH141)	
BSCI426	Global Change Biology	3	TBD		
BSCI 460	Plant Ecology	3	TBA	BSCI 160/161	
BSCI 462	Population Ecology	3	S	BSCI 160/161 and Calculus	
BSCI 467	Freshwater Biology	4 (L)	F	Prereq: BSCI 207 or dept. perm.	
BSCI 473	Marine Ecology	3	Sp	BSCI 207	
BSCI475	Sexual Selection in Nature	3	F	BSCI207	
BSCI 480	Arthropod Form and Function	4 (L)	Sp	Permission from BSCI office.	
BSCI 481	Insect Diversity and Classification	4 (L)	F	BSCI 207 or dept. perm.	
BSCI494	Animal-Plant Interactions	3	F	BSCI160/161	
ENST 403	Invasive Species Ecology	3	F		
ENST 450	Wetland Ecology	3	F	BIOM 301.	
ENST 452	Wetland Restoration	3	Sp	BSCI160/161 & (BSCI362, ENST450, ENST360, or BSCI361)	
GEOG 418	Field & Lab Tech in Env Science	3 (L)	TBD	<i>The field component takes place in summer.</i>	
GEOG 442	Biogeography	3	F	BSCI 361 or GEOG 342 or equivalent	
GEOL 453	Ecosystem Restoration	3	F	Calculus, CHEM131/132, and (GEOL100 or ENST200).	
PLSC 471	Forest Ecology	3	Sp	BSCI 160/161 or PLSC 201	
PLSC 481	Vegetation Assessment	2 (L)	Sp	GEOG306 recommended.	
PLSC 489O	Plant Taxonomy	3 (L)	Sp		

### >> Ecology in Practice – Optional. Up to 3 credits to be applied to the Restricted Elective requirement

BSCI 399	Biology Department Research	3	Sp, F, Su	Dept. permission	
ENSP 386	ENSP Internship	3	Sp,Su,Fa	ENSP386 Intern. prop. (approved in adv.)	
ENSP489Z/PLSC489Z	Environmental Sustainability in New Zealand	3	W	Must be admitted to study abroad program	
ENST 314	Fisheries Management and Sustainability	3	TBD	Prereq: one year of biology.	
ENST 460	Principles of Wildlife Mgmt.	3	Fa	BSCI361; 2 sem. of lab. bio	
ENST 461	Urban Wildlife Management	3	F	-	
ENST 479	Tropical Ecol & Resource Mgmt	3	Sp	BSCI 160/161 and perm. <i>Has a required travel-study component.</i>	
GEOG373	Geographic Information Systems	3	Sp, F, Su W		