ENSP – Biodiversity & Conservation Biology

Effective -- Fall 2016

Updated 10.12.16 - WW

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

ENSP Core

Course	Title	Offered	Grade
All			
ENSP101 (NS)	Intro to Env Science	Fa	
ENSP102 (HS)	Intro to Env Policy	Sp	
ENSP400 (SP)	Senior Capstone	Fa,Sp	
Applied Science and Policy (one)			
ENSP305	Quant. Methods	Sp	
ENSP330	Environmental Law	Fa, Sp	
ENSP340	Sci, Ethics, Law: Water	Fa	
ENSP342	Oceans: Integ. Policy	Sp	
ENSP350	Energy: Science & Policy	TBA	
Calculus (one)			**Grade**
MATH120 (MA)	Elementary Calculus	Fa,Sp,Su	
MATH130 (MA)	Calculus for Life Sciences	Fa,Sp,Su	
MATH140 (MA)	Calculus I *(recommended)*	Fa,Sp,Su	
Statistics (one)			**Grade**
BIOM301 (AR)	Intro to Biometrics	Fa,W,Sp	
GEOG306 (AR)	Intro to Quant Methods	Fa,Sp,Su,	
PSYC200 (AR)	Stat Methods in Psyc	Fa,Sp,Su	

Four (4) courses from the 5 groups below:

Biology (req'd)			**Grade**
BSCI160/161 (NL)	Ecology & Evolution/Lab	Fa,Sp,Su	
Chemistry (req'd)			**Grade**
CHEM131/132 (NL)	Gen Chemistry I/Lab	Fa,Sp,Su	
Earth Sci (req'd)			**Grade**
GEOG201/211 (NL)	Geog Environ Sys/Lab	Fa,Sp,Su	
Economics (one)			
AREC240 (HS)	Intro to Econ and Env	Sp	
AREC241 (HS, IS)	Env, Econ, and Policy	Fa	
ECON200 (HS)	Princ of Microeconomics	Fa,Sp,W	
Geography (one)			
GEOG130 (HS)	Developing Countries	Fa,Su	
GEOG140 (IS)	Natural Disasters	Fa, Sp	
GEOG170 NS)	Meth of Geospatial Anal	Fa	
GEOG202 (CC)	Intro to Human Geog	Sp	

ENSP Graduation Requirements

_____ Students must earn C- or higher in all courses used for ENSP Core and Concentration requirements.
_____ Students' major GPA must be 2.0 or higher.

General Education

Fundamental Studies (15 credits)

Requirements	Course	Cr
Academic Writing (AW)		3
Professional Writing (PW)		3
Oral Communication (OC)		3
Math (MA)	Calculus	3-4
Analytical Reasoning (AR)	Statistics	

Distributive Studies (25 credits)

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

I-Series (6 credits)*

* May double-count with Distributive Studies

Requirements	Course	Cr
I- Series (IS)		3
I- Series (IS)		3

Diversity (4-6 credits)*

* May double-count with Distributive Studies

Requirements	Course	Cr
Understanding Plural Societies (UP)		3-6
Understanding Plural Societies (UP) *or* Cultural Competency (CC)		0-3

Experiential Learning (0-3 credits)*

* May overlap with major requirements

Requirements	Course	Cr
Practical experience is *recommended* in this concentration		

Graduation Requirements

_____ Up to 6 AP courses **may** be used for Gen Ed
_____ There are **at least** 40 non-overlapping Gen Ed credits
_____ No more than 60 credits earned from Community College
_____ Last 30 credits must be earned at Maryland
_____ 120+ cumulative credits *and* 2.0+ cum GPA

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REQUIREMENTS (31-32 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	BSCI 160/161, BSCI 170/171 and CHEM	
BSCI 222	Principles of Genetics	4	Sp, F, Su	BSCI 170/171, 1 year college chemistry	
BSCI 361	Principles of Ecology	4	Sp, F	BSCI 160/161 and Calculus	
BSCI 363	Biology of Cons and Extinction	3	F	BSCI 160/161	
BSCI 370	Principles of Evolution	3	Sp, F	BSCI 160/161	
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	
Select one:					
MATH 141	Calculus II	4	Sp, F, Su	MATH 140 or equivalent	___
MATH 131	Calculus II for Life Sciences	4	Sp, F, Su	MATH 130 or 140	___
MATH 121	Elementary Calculus II	3	Sp, F, Su	MATH 120, 130, or 140, or equivalent	

RESTRICTED ELECTIVES (15 credits, including at least one laboratory (L) course):

Course	Description	Cr	Offered	Prerequisites	Grade
BSCI 334/335	Mammalogy	3/1 (L)	Sp	BSCI 160/161	
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 338Q	Spec. Top. Conservation Lab	1 (L)	Sp	To be taken concurrently w/BSCI 363.	
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	
BSCI 460	Plant Ecology	3	TBA	BSCI 160/161	
BSCI 461	Plant Ecology Laboratory	2 (L)	F	Pre- or corequisite: BSCI 460	
BSCI 462	Population Ecology	3	S	BSCI 160/161 and Calculus	
BSCI 465	Behavioral Ecology	3	Varies		
BSCI 467	Freshwater Biology	4 (L)	F	Prereq: BSCI 207 or dept. perm.	
BSCI 473	Marine Ecology	3	Sp	BSCI 207.	
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.	
ENSP 386	Internship	3	Sp,Su,Fa	ENSP386 Intern. prop. (approved in adv.)	
ENST 314	Fisheries Mgmt and Sustainability	3	Sp	Prereq: one year of biology. *Offered in Spring of "even" years (2016, 2018, etc.)*	
ENST 373	Natural Hist of the Ches. Bay	3	Fa	a course in biology or dept. perm.	
ENST 450	Wetland Ecology	3 (L)	F	BIOM 301. *Offered "even" years, e.g., Fall 2016, 2018, etc.*	
ENST 460	Principles of Wildlife Management	3	Fa	2 semesters of lab. Biology	
ENST 461	Urban Wildlife Management	3	F	-	
ENST 479	Tropical Ecol and Resource Mgmt	3	Sp	BSCI 160/161 and perm. *Course has required travel-study component.*	
GEOG 372	Remote Sensing	3	F,W,Sp,Su		
GEOG 373	Geographic Information Systems	3	F,W,Sp,Su		
GEOG 418	Field & Lab Tech in Env Science	3	F	*The field component takes place in summer. Contact instructor for info and perm.*	
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		

Study abroad and graduate-level courses may be acceptable; please contact your advisor *in advance* for approval.

Advisor notes and approved course substitutions, etc: