

# BIODIVERSITY & CONSERVATION BIOLOGY – CORE Program

Reviewed: 6.17.14

UM Core: ENGL 101 \_\_\_\_\_, (HL) \_\_\_\_\_, (HA) \_\_\_\_\_, (HL/HA/HO/IE) \_\_\_\_\_, (SH) \_\_\_\_\_, Diversity \_\_\_\_\_  
 Adv. Writing \_\_\_\_\_, Adv. Studies \_\_\_\_\_, (SB) \_\_\_\_\_, (SB/IE) \_\_\_\_\_.

Grading Policy: Environmental Science and Policy students must earn C- grades or higher in all ENSP core courses and in all required courses and restricted electives of the selected area of concentration. Biodiversity is sponsored by the College of Computer, Mathematical, and Natural Sciences (CMNS). **Effective Fall 2010, students must meet LEP requirements. ENSP/Biodiversity students only may be admitted to CMNS with MATH220 and 221. MATH130 and 131 are highly recommended. CMNS/Biodiversity Gateway courses are indicated in RED. Additional details here: <http://cmns.umd.edu/cmnsmajorchange>**

Required from ENSP Core:

Course	Title	Cr	Offered	Prerequisites	Grade	Completed	Notes
All three: <b>ENSP 101 (PS)</b> <b>ENSP 102</b> ENSP 400 (AS)	Intro. to Environmental Science Intro. to Environmental Policy Capstone in Env. Sci & Policy	3 3 3	F Sp Sp, F	- - Senior year; ENSP 101 and 102	___ ___ ___	_____ _____ _____	_____ _____ _____
Calculus: <b>MATH 140 (MS) or</b> <b>MATH 130 (MS)</b> MATH 220 (MS)	Calculus I Calculus I for Life Sciences Elementary Calculus I	4 4 3	F, Sp, Su F, Sp, Su F, Sp, Su	MATH 115 w/C or better MATH 113 or 115 with C or better. MATH 113 or 115.	___ ___ ___	_____ _____ _____	_____ _____ _____
Statistics (one): BIOM 301 GEOG 306 PSYC 200	Introduction to Biometrics Introduction to Quant. Methods Statistical Methods in Psychology	3 3 3	Sp, F Sp F, Sp, Su	MATH 115 - PSYC 100, MATH 111 or 140 or 220	___ ___ ___	_____ _____ _____	_____ _____ _____
Biology: <b>BSCI 106 (LL)</b>	Principles of Biology II	4	F, Sp, Su	placement in MATH 220 or higher	___	_____	_____
Chemistry: <b>CHEM 131/132 (PL)</b>	General Chemistry I	3/1	F, Sp, Su	placement in MATH 220 or higher	___	_____	_____
Earth Sciences: GEOG 201/211 (PL)	Geography of Env. Systems/Lab.	3/1	F, Sp, Su	-	___	_____	_____

And: One (1) course from 2 of the next 3 groups:

Economics (one): AREC 240 (SB) AREC 241 ECON 200 (SB)	Intro. to Economics and the Envir. Environment, Econ., and Policy Principles of Micro-Economics	4 4 4	Sp Fa Sp, F, Su	MATH 220 or higher recommended MATH 220 or higher recommended MATH 110 or higher	___ ___ ___	_____ _____ _____	_____ _____ _____
Geography (one): GEOG 100 (SB) GEOG 130 (SB/D) GEOG 140 (PS) GEOG 202 (SB)	Intro to Geography Developing Countries Natural Disasters Intro to Human Geography	3 3 3 3	F Fa,Su F Sp	- - - -	___ ___ ___ ___	_____ _____ _____ _____	_____ _____ _____ _____
Govt & Politics (one): ENSP 330 ENSP 340 ENSP 342 GVPT 273	Introduction to Environmental Law Water: Science, Ethics, and Law Oceans: Integrated Policy Intro. to Environmental Politics	3 3 3 3	F, S F S Sp	Permission of dept; Junior standing. Permission of dept; Junior standing. Permission of dept; Junior standing. GVPT 170 or ENSP 102	___ ___ ___ ___	_____ _____ _____ _____	_____ _____ _____ _____

Required for BIODIVERSITY & CONSERVATION BIOLOGY:

Course	Description	Cr	Offered	Prerequisites	Grade	When	Notes
<b>BSCI 105</b>	Principles of Biology I	4	Sp, F, Su	Placement in MATH 110 or higher.			
<b>BSCI 207</b> <i>if AP cr. for BSCI 105 or 106</i>	Organismal Biology	3	Sp, F	BSCI 105, BSCI 106 and CHEM			
BSCI 222	Principles of Genetics	4	Sp, F, Su	BSCI 105, 1 year college chemistry			
BSCI 361	Principles of Ecology	4	Sp, F	BSCI 106 and (MATH 140 or 220)			
BSCI 363	Biology of Cons and Extinction	3	Sp, F	BSCI 106			
BSCI 370	Principles of Evolution	3	F	BSCI 106			
CHEM 231/232	Organic Chemistry I and Lab	3/1	Sp, F, Su	CHEM 131/132			
CHEM 241/242	Organic Chemistry II and Lab	3/1	Sp, F, Su	CHEM 231/232			
Select one: <b>MATH 141</b> <b>MATH131</b> <b>MATH 221</b>	Calculus II Calculus II for Life Sciences Elementary Calculus II	4 4 3	Sp, F, Su Sp, F, Su Sp, F, Su	MATH 140 or equivalent MATH 130 or 140 MATH 220, 130, or 140, or equivalent	— —	— —	— —

Restricted Electives -- 15 credits, including at least one laboratory (L) course:

Course	Description	Cr	Offered	Prerequisites	Grade	When	Notes
BSCI 334/335	Mammalogy	3/1 (L)	Sp	BSCI 106			
BSCI 337	Biology of Insects	4 (L)	F	BSCI 106			
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 105, 106, and 222			
BSCI 392	Biology of Extinct Animals	3	F	BSCI 106 and BSCI 207			
BSCI 393	Biology of Extinct Animals Lab.	1 (L)	F	Pre- or co-requisite: BSCI 392			
BSCI 460	Plant Ecology	3	F	BSCI 106			
BSCI 461	Plant Ecology Laboratory	2 (L)	F	Pre- or corequisite: BSCI 460			
BSCI 462	Population Ecology	3	S	BSCI 106 and MATH 220			
BSCI 465	Behavioral Ecology	3	Varies				
BSCI 467	Freshwater Biology	4	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.			
ENSP386	Internship	3	Sp,Su,Fa	ENSP386 Internship proposal (approved in advance)			
ENST 314	Fisheries Mgmt and Sustainability	3	Sp*	<i>*Offered in Spring of "even" years (2014, 2016...)</i>			
ENST 373	Natural Hist of the Chesapeake Bay	3	Fa	a course in biology or dept. perm.			
ENST 450	Wetland Ecology	3 (L)	F	BIOM 301. <i>Offered "even" years, e.g., Fall 2014</i>			
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 106 and ENST perm. <i>Course has required travel-study.</i>			
GEOG 372	Remote Sensing	3	F,S,W,Su				
GEOG 373	Geographic Info Systems	3	F,S,W,Su				
GEOG 418	Field & Lab Techniques in EnvSci	3	F	<i>The field component takes place in the summer.</i>			
GEOG 442	Biogeography	3	F	BSCI 361 or GEOG 342 or equivalent			
GEOL 453	Ecosystem Restoration	3	F	MATH220, CHEM131/132, and (GEOL100 or ENST200).			
PLSC 471	Forest Ecology	3	Sp	BSCI 106 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 see advisor *in advance* to gain approval.