ENSP – Soil, Water, and Land Resources

Effective Fall 2016 and beyond

Updated 4.9.19 – ABM

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 Science (both)			**Grade**
ENST200 (NL) ***and***	Princ of Soil Science	Fa	____
GEOG201/211 (NL) *or*	Geog of Env Systems	Fa,Sp,Su	
GEOL100/110 (NL)	Physical Geology	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	Sp,Fa,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 *strongly recommended* in this concentration		

Graduation Requirements

_____ 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 *and* 2.0+ cum GPA

ENSP – Soil, Water, and Land Resources (cont'd)

REQUIREMENTS (18-22 credits): Shaded courses are no longer being offered.

Course	Description	Cr	Offered	Prerequisites	Grade
Select one:					
GEOG 372	Remote Sensing	3	Sp,Su,W	-	_____
Select one:					
GEOL 340	Geomorphology	4	Sp	GEOL 100	_____
GEOG 340	Geomorphology	3	TBA	Offered Summer or Winter, if offered.	_____
Select one:					
GEOL 451	Groundwater Geology	3	F	Check with professor	_____
GEOL 452	Watershed and Wetland Hydrology	3	F	Check with professor	_____
ENST 417*	Soil Hydrology and Physics	3	F	ENST 200 & course in physics; check w/prof.	_____
Select two:	**Skill development:**				
ENST 301	Field Soil Morph 1	1	Sp	Permission of dept	_____
ENST302	Field Soil Morph II	1	Sp	Permission of dept	
ENST303	Field Soil Morph II	1	Sp	Permission of dept	
	soil judging or intensive field	1			_____
	course; ck with advisor.				_____
ENST 423	Soil and Water Pollution	3	Sp	ENST 200 and CHEM 231/232 or permission	_____
				of dept.; check with your advisor	_____
Select two:	**Depth:**				
ENST 411	Principles of Soil Fertility	3	F	ENST 200 or equivalent.	_____
ENST 414	Soil Morphology Genesis & Class.	4	F	ENST 200	_____
ENST 417*	Soil Hydrology and Physics	3	F	ENST 200 & course in physics; or dept. perm.	_____
ENST 421	Soil Chemistry	4	Sp	ENST 200	_____
ENST 422	Soil Biochem & Microbial Ecology	3	F	ENST 200, CHEM 105/231 or dept. perm.	_____

RESTRICTED ELECTIVES: At least 3 courses and 9 credits. ***GEOG373 is strongly recommended.***

Students may suggest additions to this list by bringing a course syllabus to the faculty advisor and explaining how the course relates to their long-term academic or career interests.

Course	Description	Cr	Offered	Prerequisites	Grade
ENST 430	Wetland Soils	3	Sp	ENST 200	
ENST 440	Crops, Soils and Civilization	3	Sp	-	
ENST 450	Wetland Ecology	3	F	Meets in even years, e.g., 2016, 2018, etc.	
ENST 451	Water Quality: Field & Lab Meth.	3	Sp	CHEM 131/132 *and* (CHEM 105/232 *or* CHEM 231/232)	
GEOG 345	Introduction to Climatology	3	F		
GEOG 373	Geographic Information Systems	3	F,W,Su		
GEOG 475	Advanced Computer Cartography	3	Sp	GEOG 373	
GEOG 472	Remote Sensing	3	Fa	GEOG 372	
GEOG 473	Geog. Info. Sys. and Spatial Anal.	3	Sp	GEOG 373 and GEOG306 or equivalent.	
ENSP 386	Internship	3	Sp,F,Su	Internship proposal approved	

Recommended preparation for GRADUATE SCHOOL in Soil and Water Sciences: MATH 141 *or* MATH 121; PHYS 121 *and* 122; CHEM 231/232 *and* 241/242.

Advisor notes and approved course substitutions: