ENSP – Soil, Water, and Land Resources

Updated Aug 2021 – ABM

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

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	Applied Spatial Methods	Sp	
ENSP306	Qual Research/Env Sci	Fa	
ENSP330	Environmental Law	Fa, Sp	
ENSP340	Sci, Ethics, Law: Water	Fa	
ENSP342	Oceans: Integ. Policy	Sp	
ENSP350	Energy: Science & Policy	TBA	
ENSP370	Environmental Justice	Sp	
Calculus (one)			**Grade**
MATH120 (MA) ***or***	Elementary Calculus	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	Sp,Su, W	
PSYC200 (AR)	Stat Methods in Psyc	Fa,Sp,Su	

Five (5) 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 req'd)			**Grade**
ENST200 (NL) ***and***	Princ of Soil Science	Fa, Sp	____
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)	Development Geography	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:					
GEOG272	Introduction to Earth Observation Science *(Formerly GEOG372: Remote Sensing*)	3	F,Su,W	-	_____
Select one:					
GEOL340	Geomorphology	4	Sp	GEOL100	_____
GEOG340	Geomorphology	3	TBA	Offered Summer or Winter, if offered.	_____
Select one:					
GEOL451	Groundwater Geology	3	F	Check with professor	_____
GEOL452	Watershed and Wetland Hydrology	3	F	Check with professor	_____
ENST417*	Soil Hydrology and Physics	3	F	ENST200 & course in physics; check w/prof.	_____
Select two:	**Skill development:**				
ENST301,	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 course; ck with advisor.	1			_____
					_____
					_____
ENST415	Renewable Energy	3	F	CHEM131, PHYS121 & MATH113; perm of dept.	_____
ENST423	Soil and Water Pollution	3	Sp	ENST200 and CHEM231/232 or perm of dept	
Select two:	**Depth:**				
ENST411	Principles of Soil Fertility	3	F	ENST200 or equivalent.	_____
ENST414	Soil Morphology Genesis & Class.	4	F	ENST200	_____
ENST417*	Soil Hydrology and Physics	3	F	ENST200 & course in physics; or dept. perm.	_____
ENST421	Soil Chemistry	4	Sp	ENST200	_____
ENST422	Soil Biochem & Microbial Ecology	3	F	ENST200 or dept. perm	_____

RESTRICTED ELECTIVES: At least 3 courses and 9 credits.

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
ENCE310	Introduction to Env. Engineering	3	Fa, Sp	PHYS260 and ENCE215; and perm. of dept.	
ENST430	Wetland Soils	3	Sp	ENST200	
ENST440	Crops, Soils and Civilization	3	Sp	-	
ENST450	Wetland Ecology	3	F	Meets in even years, e.g., 2016, 2018, etc.	
GEOG345	Introduction to Climatology	3	F		
GEOG373	Geographic Information Systems	3	Sp,F,W, Su	**recommended*	
GEOG475	Advanced Computer Cartography	3	Sp	GEOG 373	
GEOG472	Remote Sensing	3	Fa	GEOG 372	
GEOG473	Geog. Info. Sys. and Spatial Anal.	3	Sp	GEOG 373 and GEOG306 or equivalent.	
ENSP386	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: