ENSP – Soil, Water, and Land Resources

Reviewed 6.3.15 - WW

ENSP Core

Course	Title	Offered	Grade
All ENSP101(NS) ENSP102 (HS) ENSP400 (SP)	Intro to Env Science Intro to Env Policy Capstone	Fa Sp Fa,Sp	
Calculus (one) MATH220 (MA) MATH140 (MA)	Elementary Calculus Calculus I (rec.)	Fa,Sp,Su Fa,Sp,Su	Grade
Statistics (one) BIOM301 (AR) GEOG306 (AR)	Intro to Biometrics Quant. Methods	Fa,W,Sp Fa,W,Sp, Su	Grade

All 4 courses below:

Biology BSCI106 (NL)	Princ of Biology II	Fa,Sp,Su	Grade
Chemistry CHEM131/132 (NL)	General Chemistry I	Fa,Sp,Su	Grade
Earth Sci ENST200 (NL) ***and*** GEOG201/211 (NL) *or* GEOL100/110 (NL)	Fund of Soil Science Geog of Env Systems Physical Geology	Fa Fa,Sp,Su Fa,Sp,Su	Grade ____ ____

Choose 1 course from 2 categories below:

Economics (one) AREC240 (HS) AREC241 (HS, IS)	Intro to Econ and Env Env, Econ, and Policy	Sp Fa	Grade
Govt /Pol (one) ENSP330 ENSP340 ENSP342 GVPT273 (SP)	Environmental Law Sci, Ethics, Law: Water Oceans: Integrated Policy Intro to Env Politics	Fa, Sp Fa Sp Sp	Grade
Geography (one) GEOG100 (HS) GEOG130 (HS or SP) GEOG140 (IS) GEOG202 (CC)	Intro to Geography Developing Countries Natural Disasters World in Cultural Persp	Fa,Su Fa,Su Fa Sp,Su	Grade

ENSP Grade Requirement

_____ 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.

UM General Education

Fundamental Studies (15 credits)

Requirements	Course	Cr/AP/IB/D
Academic Writing (AW)		3
Professional Writing (PW)		3
Oral Communication (OC)		3
Math (MA)	Calculus	3-4
Analytical Reasoning (AR)	GEOG306	3

Distributive Studies (25 credits)

Requirements	Course	Cr/AP/IB/D
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/AP/Unique
Understanding Plural Societies (UP)		3
Understanding Plural Societies (UP) *or* Cultural Competency (CC)		3

Experiential Learning (0-3 credits)*

* May overlap with major requirements

Requirements	Course	Cr
An internship is *strongly recommended*, but is not required in this concentration.	ENSP 386	3

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

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

REQUIREMENTS (18-22 credits): Shaded courses are no longer being offered; the curriculum is currently being revised.

Course	Description	Cr	Offered	Prerequisites	Grade
Select one:					
ENST 442	Remote Sensing for AGNR *or*	3	Sp	-	
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 308	Field Soil Morph – soil judging or intensive field course; ck with advisor.	3	F, Sp, Su	ENST 200	_____
ENST 413	Soil and Water Conservation	3	Sp	ENST 200	_____
ENST 415	GIS Applications in Soil Science	4	Sp	ENST 200	_____
ENST 425	Terrestrial Bioremediation	3	Sp	1 course in Biol. and CHEM 131/132 or dept.	_____
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.***

Course	Description	Cr	Offered	Prerequisites	Grade
ENCE 315	Intro. to Environmental Engineering	3	Sp,F	CHEM 131/132 and PHYS 161.	
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 221; PHYS 121 *and* 122; CHEM 231/232 *and* 241/242.

Advisor notes and approved course substitutions: