

ENSP – Soil, Water, and Land Resources

Effective -- Fall 2016

Reviewed 10.12.16 – WW

ENSP Core				General Education					
All				Fundamental Studies (15 credits)					
Course	Title	Offered	Grade	Requirements	Course	Cr			
ENSP101 (NS) ENSP102 (HS) ENSP400 (SP)	Intro to Env Science Intro to Env Policy Senior Capstone	Fa Sp Fa,Sp		Academic Writing (AW)		3			
Applied Science and Policy (one) ENSP305 ENSP330 ENSP340 ENSP342 ENSP350				Distributive Studies (25 credits)					
				Requirements			Course	Cr	
				Quant. Methods			Professional Writing (PW)		3
				Environmental Law			Oral Communication (OC)		3
				Sci, Ethics, Law: Water			Math (MA)	Calculus	3-4
				Oceans: Integ. Policy			Analytical Reasoning (AR)	Statistics	
Energy: Science & Policy									
Calculus (one) MATH120 (MA) MATH130 (MA) MATH140 (MA)				Requirements			Course	Cr	
				Elementary Calculus			Natural Sciences w/Lab (NL)	ENSP Lab Sci	4
				Calculus for Life Sciences			Natural Science (NS)	ENSP 101	3
				Calculus I (<i>recommended</i>)			History and/or Social Sci (HS1)	ENSP 102	3
				Fa,Sp,Su Fa,Sp,Su Fa,Sp,Su			History and/or Social Sci (HS2)		4
							Humanities (HU1)		3
Statistics (one) BIOM301 (AR) GEOG306 (AR) PSYC200 (AR)				Requirements			Course	Cr	
				Intro to Biometrics			Humanities (HU2)		3
				Intro to Quant Methods			Scholarship in Practice (SP, major)	ENSP 400	3
				Stat Methods in Psyc			Scholarship in Practice (SP, non-major)		3
				Fa,W,Sp Fa,Sp,Su, Fa,Sp,Su					
Four (4) courses from the 5 groups below:				I-Series (6 credits)*					
Biology (req'd) BSCI160/161 (NL)				Requirements			Course	Cr	
				Ecology & Evolution/Lab			I- Series (IS)		3
				Fa,Sp,Su			I- Series (IS)		3
Chemistry (req'd) CHEM131/132 (NL)				Requirements			Course	Cr	
				Gen Chemistry I/Lab					
Earth Science (both) ENST200 (NL) <i>and</i> GEOG201/211 (NL) <i>or</i> GEOL100/110 (NL)				Requirements			Course	Cr	
				Princ of Soil Science			Understanding Plural Societies (UP)		3-6
				Fa			Understanding Plural Societies (UP) <i>or</i> Cultural Competency (CC)		0-3
Fa,Sp,Su Fa,Sp,Su									
Economics (one) AREC240 (HS) AREC241 (HS, IS) ECON200 (HS)				Requirements			Course	Cr	
				Intro to Econ and Env Env, Econ, and Policy Princ of Microeconomics					
				Sp Fa Sp,Fa,W					
Geography (one) GEOG130 (HS) GEOG140 (IS) GEOG170 (NS) GEOG202 (CC)				Requirements			Course	Cr	
				Developing Countries					
				Fa,Su Fa, Sp Fa Sp					
ENSP Graduation Requirements				Graduation Requirements					
_____ Students must earn <u>C- or higher</u> in all courses used for ENSP Core and Concentration requirements.				_____ Up to 6 AP courses <u>may</u> be used for Gen Ed					
_____ Students' major GPA must be 2.0 or higher.				_____ 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 <i>and</i> 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: ENST 442 GEOG 372	Remote Sensing for AGNR <i>or</i> Remote Sensing	3 3	Sp Sp,Su,W	- -	_____ _____
Select one: GEOG 340 GEOG 340	Geomorphology Geomorphology	4 3	Sp TBA	GEOG 100 Offered Summer or Winter, if offered.	_____ _____
Select one: GEOG 451 GEOG 452 ENST 417*	Groundwater Geology Watershed and Wetland Hydrology Soil Hydrology and Physics	3 3 3	F F F	Check with professor Check with professor ENST 200 & course in physics; check w/prof.	_____ _____ _____
Select two: ENST 308	Skill development: 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: ENST 411 ENST 414 ENST 417* ENST 421 ENST 422	Depth: Principles of Soil Fertility Soil Morphology Genesis & Class. Soil Hydrology and Physics Soil Chemistry Soil Biochem & Microbial Ecology	3 4 3 4 3	F F F Sp F	ENST 200 or equivalent. ENST 200 ENST 200 & course in physics; or dept. perm. ENST 200 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 121; PHYS 121 *and* 122; CHEM 231/232 *and* 241/242.

Advisor notes and approved course substitutions: