

ENSP – Environmental Geosciences & Restoration

Effective -- Fall 2016

Updated 11.14.19 - 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				General Education		
Course	Title	Offered	Grade	Fundamental Studies (15 credits)		
All				Requirements		
ENSP101 (NS)	Intro to Env Science	Fa		Academic Writing (AW)		3
ENSP102 (HS)	Intro to Env Policy	Sp		Professional Writing (PW)		3
ENSP400 (SP)	Senior Capstone	Fa,Sp		Oral Communication (OC)		3
Applied Science and Policy (one)				Math (MA)		
ENSP305	Applied Quant. Methods in Env. Sci & Policy Environmental Law Sci, Ethics, Law: Water Oceans: Integ. Policy Energy & Science	Sp		Math (MA)	Calculus	3-4
ENSP330		Fa, Sp		Analytical Reasoning (AR)	Statistics	
ENSP340		Fa		Distributive Studies (25 credits)		
ENSP342		Sp		Requirements		
ENSP350		TBA		Natural Sciences w/Lab (NL)	ENSP Lab Sci	4
Calculus (one)				Natural Science (NS)		
MATH140 (MA)	Calculus I	Fa,Sp,Su		History and/or Social Sci (HS1)	ENSP 102	3
Statistics (one)				History and/or Social Sci (HS2)		
BIOM301 (AR)	Intro to Biometrics Intro to Quant Methods Stat Methods in Psysc	Fa,W,Sp		Humanities (HU1)		3
GEOG306 (AR)		Sp,Su, W		Humanities (HU2)		3
PSYC200 (AR)		Fa,Sp,Su		Scholarship in Practice (SP, major)	ENSP 400	3
One course from each of the following:				Scholarship in Practice (SP, non-major)		
Biology (req'd)				I-Series (6 credits)*		
BSCI160/161 (NL)	Ecology & Evolution/Lab	Fa,Sp,Su		* May double-count with Distributive Studies		
Chemistry (req'd)				Requirements		
CHEM131/132 (NL)	Gen Chemistry I/Lab	Fa,Sp,Su		I- Series (IS)		3
Earth Sci (req'd, both)				I- Series (IS)		
GEOL100/110 (NL) <i>or</i> GEOL120/110 (NL)	Physical Geology/Lab or Environ Geology/Lab	Fa,Sp,Su Fa,Sp,Su				3
<i>and</i> ENST200 (NL)	Princ of Soil Science	Fa		Diversity (4-6 credits)*		
Economics (one)				* May double-count with Distributive Studies		
AREC240 (HS)	Intro to Econ and Env Env, Econ, and Policy Princ of Microeconomics	Fa		Requirements		
AREC241 (HS, IS)		Sp		Understanding Plural Societies (UP)		3-6
ECON200 (HS)		Fa,W,Sp,Su		Understanding Plural Societies (UP) <i>or</i> Cultural Competency (CC)		0-3
ENSP Graduation Requirements				Experiential Learning (0-3 credits)*		
_____ Students must earn <u>C-</u> or <u>higher</u> in all courses used for ENSP Core and Concentration requirements. _____ Students' major GPA must be 2.0 or higher.				* May overlap with major requirements		
				Requirements		
ENSP Graduation Requirements				Practical experience is <i>required</i> in this concentration		
_____ 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 <i>and</i> 2.0+ cum GPA				Graduation Requirements		

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REQUIREMENTS:

BASIC SCIENCES (12 credits)

Course	Description	Cr	Offered	Prerequisites	Grade
CHEM 231/232	Organic Chemistry I	4	Sp,F,Su	CHEM 131/132	
MATH141	Calculus II	4	Sp,F,Su	MATH140	
PHYS141 <i>or</i> PHYS161/174	Principles of Physics Gen Physics: Mech & Part Dyn/ Phys lab (lab no longer offered)	4 3/1		no longer offered MATH141	

UPPER LEVEL REQUIREMENTS (17 credits): Note that it's not possible to take all three of GEOL451, 452 and 453 during the same semester. Please consult with your EGR advisor ASAP after declaring this concentration to schedule your courses appropriately.

BSCI 361	Principles of Ecology	4	F,W,Sp	BSCI 160/16, and Calculus	
GEOL 340	Geomorphology	4	Sp	GEOL 100/110	
GEOL451 <i>or</i> GEOL452	Groundwater Watershed & Wetland Hydrology	3 3	F F	CHEM 131/132, GEOL100/110, MATH141 Jr. standing	
GEOL453	Princ and Prac of Ecosys Rest	3	F	MATH220 or 140; GEOL100 or 120, or ENST200.	
ENSP 386	Internship	3	F,Sp,Su	Approved internship proposal	

AREAS OF DEPTH - at least 5 classes and 15 credits, including _____ a minimum of 6 cr from each of two areas
- or - _____ a minimum of 9 cr in one area

Course	Description	Cr	Offered	Prerequisites	Grade
Techniques and Application: GEOG372 GEOG373	Remote Sensing Geographic Info Systems	3 3	F,W, Su F,W,Sp,Su		_____ _____
Environmental Restoration: ENST 414 ENST 421 ENST 422 ENST 423 ENST 430 ENST 450 ENST452 PLSC471	Soil Morph Genesis and Classif. Soil Chemistry Soil Biochem & Microbial Ecol. Soil-Water Pollution Wetland Soils Wetland Ecology Wetland Creation and Restoration Forest Ecology	4 4 3 3 3 3 3 3	F Sp Sp F Sp F Sp Sp	ENST 200 ENST 200 ENST 200 ENST 200 ENST 200 BIOM301 BSCI 160/161; BSCI362, ENST360, or ENST450 or BSCI 160/161	_____ _____ _____ _____ _____ _____ _____ _____
Surficial Geology: GEOL 322 GEOL 342 GEOL 436 GEOL 437 GEOL 444 GEOL451* GEOL452*	Mineralogy Sedimentation and Stratigraphy Biogeochemistry Global Climate Change Past/Pres. Low-Temperature Geochemistry Groundwater* Watershed & Wetland Hydro*	4 4 3 3 4 3 3	Sp F F, odd years Sp F F F	GEOL100/110, CHEM 131/132 GEOL 322 GEOL 100/110, CHEM 131/132, GEOL322, and MATH 140 or 220 CHEM131/132, GEOL100, and MATH115 CHEM131/132, GEOL 100/110, GEOL 322, and MATH115 CHEM 131/132, GEOL100/110 Jr. standing	_____ _____ _____ _____ _____ _____ _____ _____
* If not taken to satisfy upper level requirement above					<i>Continued...</i>

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Course	Description	Cr	Offered	Prerequisites	Grade
Deep-Earth Geology:					
GEOL102	Historical Geology	4	Sp	GEOL100 or GEOL120	_____
GEOL341	Structural Geology	4	Sp	GEOL102	_____
GEOL423	Optical Mineralogy	3	F	GEOL100 or GEOL120, GEOL322, CHEM131/132	_____
GEOL443	Petrology	4	Sp	GEOL100 or GEOL120, GEOL322, GEOL423, CHEM131/132	_____
GEOL445	High-Temperature Geochemistry	4	F	MATH115; GEOL100; GEOL322; CHEM131 and CHEM132	_____
GEOL446	Geophysics	3	F	MATH140, MATH141	_____
GEOL455	Marine Geophysics	3	F	GEOL100 or GEOL120, MATH141, PHYS141 or PHYS161	_____
GEOL456	Engineering Geology	3	Sp	GEOL100 or GEOL120, MATH141, PHYS141 or PHYS161	_____
GEOL457	Seismology	3	Sp	GEOL100 or GEOL120, MATH141	_____