ENSP – Marine and Coastal Management

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	Grade
All three ENSP101 (NS) ENSP102 (HS) ENSP400 (SP)	 Intro to Env Science Intro to Env Policy Senior Capstone	
Applied Science and Policy (one) ENSP305 ENSP306 ENSP330 ENSP340 ENSP350 ENSP370	 Applied Spatial Methods Qual Research/Env Sci Environmental Law Sci, Ethics, Law: Water Energy: Science & Policy Environmental Justice	
Calculus (pick one) MATH120 MATH140 (MA)**	 Elem. Calculus Calculus I	
Statistics (one) BIOM301 (AR) or GEOG306 (AR) ** ** *recommended*	 Intro to Biometrics Intro to Quant Methods	

One course from <u>each</u> category as indicated below:

		Grade
Biology BSCI160 & BSCI161 or BSCII80	 Ecology & Evolution Evolution lab or Principles Bio. Lab	
Chemistry CHEM131/132 (NL)	 Gen Chemistry I/Lab	
Earth Sci (both req'd) GEOG201/211 (NL) & AOSC200/201 (IS)	 Geog Environ Systems/Lab Weather and Climate	
Economics (pick one) AREC240 (HS) AREC241 (HS, IS) ECON200	 Intro to Econ and Env Env, Econ, and Policy Princ of Microeconomics	
Geography (pick one) GEOG130 (HS) GEOG140 (IS) GEOG170 (NS)	 Developing Countries Natural Disasters Meth of Geospatial Anal	

ENSP Graduation Requirements

_____ Students must earn <u>C- or higher</u> 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)	GEOG306	

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)	AOSC200	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 *required* in this concentration		

Graduation Requirements

_____ <u>Up to 6 AP courses</u> **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 – Marine and Coastal Management (cont'd)

UPPER LEVEL REQUIREMENTS (12 credits):

Course	Description	Cr	NOTES	Grade
AOSC 375/GEOL375	Introduction to the Blue Ocean	3	MATH 120.	
ENSP 342	Oceans & Coasts: Integrated Policy	3	ENSP101, ENSP102, and junior standing.	
GEOG 441	The Coastal Ocean	3	GEOG140 or course w/ comparable content	
ENST450 *or* Approved course	Wetland Ecology- *no longer required. Work with advisor on approved substitution*	3	BIOM301; perm of dept.	

>>> TECHNICAL REQUIREMENTS (6 credits):

Course	Description	Cr	NOTES	Grade
GEOG 272	Introduction to Earth Observation Science	3		
GEOG 373	Geog Info Sys and Spatial Anal.	3		

>>> SYNTHESIS: 3 credits

Course	Description	Cr	NOTES	Grade
ENSP 386	Internship	3	Dept. permission	

RESTRICTED ELECTIVES (15 credits):

>>> Area 1 – COASTAL SCIENCE – must include ***at least two*** 300- or 400-level courses in Coastal Science:

Course	Description	Cr	NOTES	Grade
AOSC 360	How to Solve the Climate Change Problem?			
AOSC 400	Physical Meteorology of the Atmos	3	Physics *or* perm.	
AOSC 401	Climate Dynamics and Earth System Science	3	AOSC 400, MATH141 or permission	
AOSC 420	Physical Oceanography	3	MATH141 and PHYS141	
AOSC 421	Oceanography of the Chesapeake Mid Atlantic	3		
BSCI 361	Ecology	4	BSCI160/161 and MATH140	
BSCI467	Freshwater Biology	4	BSCI160	
BSCI 473	Marine Ecology	3	BSCI 160/161 and BSCI 207	
ENST 200	Fundamentals of Soil Science	4	CHEM 131/132.	
GEOG 301	Adv Geog Environmental Sys	3	GEOG201/211	
GEOG 440	Polar Remote Sensing	3		
GEOL 340	Geomorphology	4	GEOL 100/110	
GEOG 472	Rem Sensing Digital Proc & Anal	3	GEOG 272 and GEOG306 or equiv	
GEOG 473	Geog Info Sys & Special Analysis	3	GEOG 272 and GEOG306 or equiv	
GEOL 451	Groundwater	3		
GEOL 452	Watershed and Wetland Hydrology	3	MATH 140, GEOL 100, CHEM 131/132, *or* perm	
GEOL 453	Ecosystem Restoration	3	Jr. standing	

>>> Area 2 – MANAGEMENT & GRADUATE SCHOOL PREPARATION

>>> 2a – Management – must include ***at least one*** 300- or 400-level course in Management, below. Students may not use a course here to double-count with ENSP Core, e.g., ENSP330 or ENSP340.

Course	Description	Cr	Prerequisites	Grade
ANTH 451	Environmental Archaeology	3		
ANTH 454	Political Ecology	3		
ANTH 463	Climate Cultures	3		
ANTH 467	Researching Environment & Culture	3		
ENSP 305	Applied Spatial Analysis	3		
ENSP 330	Environmental Law	3	Junior standing; dept. perm.	
ENSP 340	Water: Science, Ethics and Law	3	Junior standing; dept. perm.	
ENST361	Urban Environmental Science	3		
GEOG 331	Human Dimensions of Global Change	3		
GEOG 415	Land Use, Climate Change, & Sust.	3	GEOG 201/211, GEOG 306 or equiv	
GEOG 431	Culture and Natural Resource Mgmt	3		

>>> 2b – Graduate school preparation – ***Optional. Students may use up to two courses*** below as Restricted Electives.

Course	Description	Cr	Prerequisites	Grade
MATH 141	Calculus II	4	MATH 140	
CHEM 231/232	Organic Chemistry	4	CHEM 131/132	
PHYS161/261	Gen Physics & lab	4	Can accept PHYS121	

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.