

# ENSP – Marine and Coastal Management

Reviewed 1.21.16 – WW

ENSP Core				UM General Education		
Course				Fundamental Studies (15 credits)		
Title				Requirements	Course	Cr/AP/IB/D
Offered				Academic Writing (AW)		
Grade				Professional Writing (PW)		
All ENSP101 (NS) ENSP102 (HS) ENSP400 (SP)				Oral Communication (OC)		
				Math (MA)		
				Analytical Reasoning (AR)		
Grade				Distributive Studies (25 credits)		
Calculus MATH140 (MA)				Requirements		
				Natural Sciences w/Lab (NL)		
Statistics (one) BIOM301 (AR) <i>or</i> GEOG306 (AR)				Natural Science (NS)		
				History and/or Social Sci (HS1)		
Intro to Biometrics Intro to Quant Meth. <i>(strongly recommended)</i>				History and/or Social Sci (HS2)		
				Humanities (HU1)		
Courses from <u>each</u> category below as indicated:				Humanities (HU2)		
				Scholarship in Practice (SP, major)		
Biology BSCI106 (NL)				Scholarship in Practice (SP, non-major)		
				I-Series (6 credits)*		
Chemistry CHEM131/132 (NL)				Requirements		
				I- Series (IS)		
Earth Sci (both) GEOG201/211 (NL) <i>and</i> AOSC200/201 (NL)				I- Series (IS)		
				Diversity (4-6 credits)*		
Economics (one) AREC240 (HS) AREC241 (HS, IS)				Requirements		
				Understanding Plural Societies (UP)		
Geography GEOG 130 (HS or SP) GEOG 140 (IS)				Understanding Plural Societies (UP) <i>or</i> Cultural Competency (CC)		
				Experiential Learning (0-3 credits)*		
ENSP Grade Requirement  _____ 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.				Requirements		
				An internship is <i>required</i> in this concentration.		
ENSP Grade Requirement  _____ 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.				Graduation Requirements		
				_____ Up to 6 AP courses <b>may</b> be used for Gen Ed _____ There are <b>at least</b> 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 – Marine and Coastal Management (cont'd)

### UPPER LEVEL REQUIREMENTS (12 credits):

Course	Description	Cr	Offered	Prerequisites	Grade
AOSC 375/GEOL375	Introduction to the Blue Ocean	3	Fa	MATH 140.	
ENSP 342	Oceans & Coasts: Integrated Policy	3	Sp	ENSP101, ENSP102, and junior standing.	
GEOG 441	The Coastal Ocean	3	Sp	GEOG 201/211	
ENST 450	Wetland Ecology	3	F of even years, 2014, 2016, etc	BIOM 301. <i>Course may conflict with ENSP 400 and GEOG 373, so plan ahead, e.g., take GEOG373 Summer or Winter terms.</i>	

Approved course substitution:

### >>> TECHNICAL REQUIREMENTS (6 credits):

Course	Description	Cr	Offered	Prerequisites	Grade
GEOG 372	Remote Sensing	3	Fa,Sp,Su,W		
GEOG 373	Geog Info Sys and Spatial Anal.	3	Fa,W,Su		

### >>> SYNTHESIS: 6 credits

Course	Description	Cr	Offered	Prerequisites	Grade
ENSP 386	Internship	3	F,Sp	Dept. permission	
ENSP 400	Capstone	3	F,Sp	Senior standing and dept. permission	

RESTRICTED ELECTIVES (15 credits): **Generally 2 courses in one area and 3 courses in the other, but check course credit levels carefully to be sure they add up.**

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

Course	Description	Cr	Offered	Prerequisites	Grade
AOSC 400	Physical Meteorology of the Atmos	3	F	MATH 140 <i>or perm.</i>	
AOSC 401	Global Environment	3	Sp	AOSC 400	
BSCI 361	Ecology	4	F,Sp,Su	BSCI106	
BSCI 375	Biological Oceanography	3	varies	BSCI 106 and BSCI 207	
BSCI 473	Marine Ecology	3	Sp	BSCI 106 and BSCI 207	
ENST 200	Fundamentals of Soil Science	4	Fa	CHEM 131/132.	
ENST 314	Fisheries and Sustainability	3	Sp*	<i>*Offered even years (2012, 2014, etc)</i>	
ENST 373	Natural History of the Ches Bay	3	Fa	One semester of biological science	
GEOG 340 <i>or</i> GEOL 340	Geomorphology	3	TBA	GEOG 201/211	
	Geomorphology	4	Fa	GEOL 100/110	
GEOG398 B	Adv Geog Environmental Sys	3	Sp	GEOG201/211	
GEOG 472	Advanced Remote Sensing	3	Fa	GEOG 372	
GEOG 473	Advanced Geog. Info. Systems	3	F, Sp	GEOG 373	
GEOL 452	Watershed and Wetland Hydrology	3	Fa	MATH 140, GEOL 100, CHEM 131/132, <i>or perm</i>	
GEOL 453	Ecosystem Restoration	3	Fa	Jr. standing	

>>> Area 2 – MANAGEMENT & GRADUATE SCHOOL PREPARATION

>>> 2a – Management – must include **at least one** 300- or 400-level course in Management, below.

Course	Description	Cr	Offered	Prerequisites	Grade
ANTH 450	Theory and Prac of Env. Anth	3	F	Junior standing	
ANTH 454	Anth of Travel and Tourism	3	Varies		
AREC 453	Natural Resources and Public Policy	3	F	ECON 200, 201 and 326	
AREC 454	Economics of Climate Change	3	Sp	ECON 200, 201 and 326	
AREC 455	Economics of Land Use	3	F	ECON 200, 201 and 326	
ENSP 330	Environmental Law	3	F, S	Junior standing; dept. perm.	
ENSP 340	Water: Science, Ethics and Law	3	Fa	Junior standing; dept. perm.	
GEOG 415	Land Use, Climate Change, & Sust.	3	Sp	GEOG 201/211, GEOG 306 or equiv	
GEOG 431	Culture and Natural Resource Mgmt	3	F		

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

Course	Description	Cr	Offered	Prerequisites	Grade
MATH 141	Calculus II	4	F,Sp,Su	MATH 140	
CHEM 231/232	Organic Chemistry	4	F,Sp,Su	CHEM 131/132	
PHYS 141	Physics	4	F,Sp	No longer offered	
PHYS161/174	Gen Physics: Mech and Part Dyn & Physics laboratory intro	4	F,Sp,Su	MATH141	