MARINE & ENVIRONMENTAL SCIENCE CURRICULUM

FRESHMAN YEAR

	Fall			Spring	
MES 130	Intro to Environ Sci	3	MES 102	Intro to Earth & Ocean	3
MES 131	Lab Techniques in Envion Sci	1	MES 102	Intro to Earth & Ocean Lab	1
BIO 105	Intro to Biology I	3	BIO 106	Intro to Biology II	3
BIO 105	Intro to Biology I Lab	1	BIO 106	Intro to Biology II Lab	1
MAT 151	Calculus I	4	MAT 152	Calculus II	4
ENG 101	Written Communication I	3	ENG 102	Written Communication II	3
UNV101	Individual and Life	1	PE	Physical Education	1
		16			**16**

SOPHOMORE YEAR

	FALL			SPRING	
CHE 201	General Chemistry I	3	CHE 202	General Chemistry II	3
CHE 201	General Chemistry I Lab	1	CHE 202	General Chemistry II Lab	1
HUM 201	Seminar in Humanities I	3	MES 210	Biometry	3
MES 311	Renewable Energy	3	HUM	Humanities Elective	3
PHY 203	Physics I w/Calculus	3	COM 103	Oral Communication	3
PHY 215	Intro Physics I Lab	1	PHY 204	Physics II w/calculus	3
PE	Physical Education	1	PHY 216	Intro Physics II Lab	1
		16			**17**

JUNIOR YEAR

	FALL			SPRING	
CHE 301	Gen Organic Chemistry I	3	CHE 302	Gen Organic Chemistry II	3
CHE 301	Gen Organic Chemistry I Lab	1	CHE 302	Gen Organic Chemistry II Lab	1
MES 452	Marine Ecology	4	MES 408	Resource Management	3
ELECTIVE*	See List	3	MES 304	Thesis I	1
HIS 106	World Civilizations II	3	ELECTIVE*	See List	3
SOC	Social Science Elective	3	SOC	Social Science Elective	3
		16			**14**

SENIOR YEAR

	FALL			SPRING	
MES 404	Thesis II	3	MES 405	Thesis III	3
MES 201	Mid Atlantic Watershed Diver	3	MES 351	Chem/Phy Oceanography	3
MES 201	Mid Atlan Watershed Diver Lab	1	ELECTIVE*	See List	3
MES 510	Environmental Toxicology	3	ELECTIVE*	See List	4
ELECTIVE	Two 1 credit or One 2 credit	2			
		12			**13**

TOTAL CREDITS 120 (includes 15 credits of electives)

Elective courses must be 200 level or higher, except for APS courses. See elective list on back of this sheet.

If MAT 117/118 must be taken, students should consider taking those courses at a Community College prior to attending Hampton University.

DEPARTMENT OF MARINE AND ENVIRONMENTAL SCIENCE
REQUIRED ELECTIVE LIST

(Keep in mind that any elective taken that is not on this list will not count towards your electives)

Marine Science/Oceanography:

HU Courses:

MES 291	Research course
MES 310	Biological Oceanography
MES 518	Ichthyology
MES XXX	Marine Mammology
MES 451	Communicating Ocean Sciences to Informal Audiences

ODU Consortium Courses:

OEAS 310	Global Earth Systems
OEAS 404	Environmental Physiology of Marine Animals
OEAS 406	Matlab
OEAS 415	Waves and Tides
OEAS 420	Hydrogeology
OEAS 432	Introduction to Thermo- and Fluid Dynamics for Oceanographers
OEAS 451	Data Collection and Analysis in Oceanography

Environmental Science/Organismal:

HU Courses:

BIO 210	Botany
BIO 220	Zoology
BIO 525	Conservation Biology
BIO 542	Toxic/ Venomous Animals
CHE 509	Environmental Chemistry + other chemistry
MES 430	Ecology
SCI 203	Intro to Nanoscience
SCI 300	Earth Science

ODU Consortium Courses:

OEAS 403W	Aquatic Pollution
OEAS 408	Introductory Soils
OEAS 412	Global Environmental Change
OEAS 413	Environmental Geochemistry
OEAS 419	Spatial Analysis of Coastal Environments
OEAS 420	Hydrogeology

CNU Consortium Courses:

ANTH 325	Food and Culture
ANTH 331	Environment, Culture and Society
ECON 301	Environmental Economics
EVST 395	Topics in Environmental Studies
GEOG 308	Our Urban Experience
GOVT 391	International Environmental Politics
PHYS 142	Energy: Principles, Problems and Societal Impacts

Genetics, Microbial and Molecular Biology HU:

BIO 304	General Microbiology
BIO 305	Principles of Heredity
BIO 404	Techniques in Molecular Genetics
BIO 405	Topics in Molecular Biology
BIO 406	Developmental Genetics
BIO 412	Gene Expression and Control
BIO 422	A/B Micro techniques
BIO 430	Bioinformatics and Genomics
BIO 502	Advanced Genetics
BIO 507	Microbial Ecology
BIO 512	Cell Biology
BIO 523	Applied Microbiology

Atmospheric and Planetary Science:

APS 101	Weather and Climate
APS 102	Natural Disasters
APS 105	Elements of Astronomy
APS 106	Astronomy of Stars & Galaxies
APS XXX	Research courses

Architecture:

ARC 531	Adaptation to Sea Level Rise I
ARC 532	Adaptation to Sea Level Rise II

Other SOS/ENG courses at HU:

CSC XXX	Computer Science courses
EGR 101	Intro to Engineering (2 credit course, must be supplemented with a 1 or 2 credit course)
MAT XXX	Math courses
PHY XXX	Physics courses