

MARINE & ENVIRONMENTAL SCIENCE CURRICULUM

FRESHMAN YEAR

Fall			Spring		
MES 130	Intro. to Environ. Sci.	3	MES 102	Intro. to Earth & Oce	3
MES 131	Intro. to Environ. Sci. Lab	1	MES 102	Intro. to Earth & Oce Lab	1
BIO 105	General Biology I	3	BIO 106	General Biology II	3
BIO 105	General Biology I Lab	1	BIO 106	General Biology II Lab	1
ENG 101	Written Communication I	3	ENG 102	Written Comm II	3
HIS 106	World Civilizations I	3	COM 103	Oral Communication	3
UNV 101	Individual and Life	1	SOC	Social Science Elective	3
PE	Physical Education	1			
		16			17

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
MAT 151	Calculus I	4	MAT 152	Calculus II	4
HUM	Humanities Elective I	3	MES 210	Biometry: Stat. Env. Sci.	3
MES 201	Biodiversity	3	HUM	Humanities Elective II	3
MES 201	Biodiversity Lab	1	SOC	Social Science Elective	3
PE	Physical Education	1			
		16			17

JUNIOR YEAR

FALL			SPRING		
CHE 301	Organic Chemistry I	3	CHE 302	Organic Chemistry II	3
CHE 301	Organic Chemistry I Lab	1	CHE 302	Organic Chemistry II Lab	1
PHY 203	Physics I w/Calculus	3	PHY 204	Physics II w/calculus	3
PHY 215	Intro Physics I Lab	1	PHY 216	Intro Physics II Lab	1
MES 452	Marine Ecology	4	MES 408	Resource Management	3
ELECTIVE*	See list	3	MES 304	Thesis I	1
			ELECTIVE*	See list	3
		15			15

SENIOR YEAR

FALL			SPRING		
MES 404	Thesis II	3	MES 405	Thesis III	3
MES 510	Environmental Toxicology	3	ELECTIVE*	See list	4
ELECTIVE*	See list	4	ELECTIVE*	See list	3
MES 311	Green Technology	3	MES 351 Chem/Phys Oceanography		3
		13			13

TOTAL CREDITS 122

MESC or SCI/MATH elective courses must be 200 level or higher. All other courses must have the permission of the advisor and chair.

Note: If MAT 117/118 must be taken, students will take those courses their freshman year in the place of 106 and SOC.

Note: Move HIS 106 and SOC to senior year. *See elective list on back

DEPARTMENT OF MARINE AND ENVIRONMENTAL SCIENCE

SUGGESTED ELECTIVE LIST

Marine Science/Oceanography:

HU

MES 310	Biological Oceanography
MES 518	Ichthyology
MES XXX	Marine Mamology
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:

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:

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:

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 Microtechniques
BIO 430	Bioinformatics and Genomics
BIO 502	Advanced Genetics
BIO 512	Cell Biology
BIO 523	Applied Microbiology
BIO 516	Marine Microorganisms

Atmospheric and Planetary Science:

APS XXX	Natural Disasters and other lower level APS courses
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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
ENG 101	Intro to Engineering
MAT XXX	Math courses
PHY XXX	Physics courses