B.S. IN MARINE AND ENVIRONMENTAL BIOLOGY AND POLICY

Code	Title	Credits
Major Requirements/Biology - MEBP (39 credits) [1]		
BY-119	Introductory Biology Major Seminar	1
BY-109	Introduction to Biodiversity and Evolution	4
(Satisfies Natural Sciences in General Education)		
BY-110	Introduction to Cell and Molecular Biology	4
BY-205	Zoology	3
BY-214	Botany	3
BY-216	Introduction to Genetics	4
(Satisfies Technological Literacy (TL) in General Education)		
BY-220	Environmental Biology and Policy	3
BY-341	Marine Biology	4
BY-342	Coastal Zone Management	3
BY-395	Seminar in Marine and Environmental Biology	3
(Satisfies Reasoned Oral Discourse (RD) in General Educaiton)		
BY-440	Ecology	4
BY-442	Natural Resource Conservation and Management	3
MEBP Electives (15 credits)		
Select 15 credits from courses designated with Course Type: MEBP. Nine (9) credits must be at the 300+ level or highter.		15
BY-221	Introduction to Global Sustainability	
BY-223	General Microbiology	
BY-264	Environmental Field Methods	
BY-290	Open Water Scuba Certification Course	
BY-303	Biological Oceanography	
BY-310	Biochemistry and Lab	
BY-317	Tropical Island Ecology	
BY-322	Icthyology	
BY-324	Applied Microbiology	
BY-375L	Laboratory in Molecular and Cellular Biology	
BY-420	Ecosystems Analysis	
BY-424	Evolution	
BY 299/BY 399/BY 499 Independent Study		
PH-270	Physical Oceanography	
CE-220	Environmental Chemistry	
CE-220L	Environmental Chemistry Laboratory	
CE-242	Organic Chemistry II	
AN-278	Maritime History/Underwater Archaeology	
GIS-224	Introduction to Geographic Information Systems (GIS)	
GIS-336	Marine Applications of Geographic Information Systems	
GO-332	Climate Change Adaptation and Policy	
PS-330	Environmental Policy	
Interdisciplinary Requirements (27 credits)		
Select 3 credits from the following:		3
(MA-115 or MA-116 or MA-125 satisfies Mathematics in General Education)		
MA-115	Pre-Calculus Modeling for the Biological Sciences	
MA-116	Calculus for the Biological Sciences	
MA-125	Calculus with Analytic Geometry I	
MA-151	Statistics with Applications	3
CE-111	General Chemistry I	3
CE-111L	General Chemistry Laboratory I	1
CE-112	General Chemistry II	3
CE-112L	General Chemistry Laboratory II	1
CE-241	Organic Chemistry I [2]	3
CE-241L	Organic Chemistry Laboratory I	2
PH-105	Physics for the Life Sciences I	3
PH-105L	Physics for the Life Sciences Laboratory I	1
PH-106	Physics for the Life Sciences II	3
PH-106L	Physics for the Life Sciences Laboratory II	1
Free Electives (9 credits)		
Complete up to 9 credits of free electives [3]		9
General Education Requirements (30 credits)		
Complete 30 credits as outlined on the General Education table. [4]		30
Total Credits		120

1 *BY-102 Applications in Biotechnology (3 cr.), BY-104 Human Biology (3 cr.), BY-105 Introductory Biology and Human Development (3 cr.), and BY-106 The Brain - Highs and Lows (3 cr.) are not available to BY majors.*

2 *A second semester of Organic Chemistry (*CE-242 Organic Chemistry II (3 cr.)*) may be required for certain graduate programs in marine or environmental science.*

3 *Please consult with your advisor regarding the required number of free electives that must be completed.*

4 *The General Education curriculum requires the completion of 45 credits. However, students may be able to share credits from within their major or interdisciplinary requirements. Please consult with your advisor to determine which General Education* (http://catalog.monmouth.edu/undergraduate-catalog/academic-programs-support-services-regulations/general-education-requirements) *courses must be completed.*

Notes

- 54 credits must be completed at the 200 level or higher.

Sequence Chart

First Year

Fall	Credits	Spring	Credits
EN-101 College Composition I	3	EN-102 College Composition II	3
BY-110 Introduction to Cell and Molecular Biology or 109	4	CE-112 & 112L (Gen*Ed Natural Science (NS) BY,CE,PH,SC,GL)	4
BY-119 Introductory Biology Major Seminar	1	BY-109 Introduction to Biodiversity and Evolution or 110	4

CE-111 & 111L (Gen*Ed Natural Science (NS) BY,CE,PH,SC,GL)	4	FO-xxx World Language	3
MA-115 Pre-Calculus Modeling for the Biological Sciences or 116 (Gen*Ed Mathematics)	3	Gen*Ed Social Science Survey (SS.SV)	3
Semester Credits	15	Semester Credits	17

Second Year

Fall	**Credits**	**Spring**	**Credits**
BY-205 Zoology	3	MA-151 Statistics with Applications	3
MEBP Elective (see curriculum chart)	3	Gen*Ed Literature (LIT)	3
CE-241 & 241L	5	BY-214 Botany	3
Gen*Ed Aesthetics (AT) AR,DA,MU,TH	3	BY-216 Introduction to Genetics	4
		MEBP Elective	3
Semester Credits	14	Semester Credits	16

Third Year

Fall	**Credits**	**Spring**	**Credits**
PH-105 & 105L	4	BY-342 Coastal Zone Management	3
Gen*Ed Cultural Diversity (CD) or Global Understanding (GU)	3	BY-395 Seminar in Marine and Environmental Biology	3
BY-220 Environmental Biology and Policy	3	PH-106 & 106L	4
BY-341 Marine Biology	4	MEBP Elective (see curriculum chart)	3
		Free Elective	3
Semester Credits	14	Semester Credits	16

Fourth Year

Fall	**Credits**	**Spring**	**Credits**
BY-440 Ecology	4	BY-442 Natural Resource Conservation and Management	3
MEBP Elective	3	Gen*Ed Social Science Survey (SS.SV)	3
PR-4xx Interdisciplinary Perspectives (ISP)	3	MEBP Elective	3
Gen*Ed Historical Perspectives (HS.SV) or Social Science Survey (SS.SV)	3	Free Elective	3
Free Elective	3		
Semester Credits	16	Semester Credits	12

Total Credits 120