B.S. IN MARINE AND ENVIRONMENTAL BIOLOGY AND POLICY (BY.MEBP.BS)

Code	Title	Credits
Major Requirements/Biology - MEBP (39 credits) [1]		
BY-119	Introductory Biology Major Seminar	1
BY-109	Introduction to Ecology 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 (Satisfies Writing Intensive (WT) requirement)	3
BY-395	Seminar in Marine and Environmental Biology	3
(Satisfies Reasoned Oral Discourse (RD) in General Educaiton)		
BY-440	Ecology (Satisfies Writing Intensive (WT) requirement)	4
BY-442	Natural Resource Conservation and Management (Satisfies Writing Intensive (WT) requirement)	3
MEBP Electives (16 credits)		
Select 16 credits from courses designated with Course Type: MEBP. Nine (9) credits of these electives must be Biology (BY) courses and nine (9) credits must be at the 300+ level or highter.		16
BY-206	Introduction to Oceanography	
BY-209	Environment and Human Health	
BY-221	Introduction to Global Sustainability	
BY-223	General Microbiology	
BY-264	Environmental Field Methods	
BY-290	Open Water Scuba Certification Course	
BY-317	Tropical Island Ecology	
BY-322	Ichthyology	
BY-324	Applied Microbiology	
BY-327	Design and Analysis of Biological Experiments	
BY-420	Applied Field Biology	
BY-424	Evolution	
BY 299/BY 399/BY 499 Independent Study		
CE-220	Environmental Chemistry	
CE-220L	Environmental Chemistry Laboratory	
CE-242	Organic Chemistry II	
CE-242L	Organic Chemistry II Laboratory	
AN-278	Maritime History/Underwater Archaeology	
GIS-224	Introduction to Geographic Information Systems (GIS)	
GIS-336	Marine Applications of Geographic Information Systems	
GIS-337	Fundamentals of Remote Sensing	
GO-332	Climate Change Adaptation and Policy	
PS-330	Environmental Policy	
Interdisciplinary Requirements (26 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 I Laboratory	1
CE-112	General Chemistry II	3
CE-112L	General Chemistry II Laboratory	1
CE-241	Organic Chemistry I [2]	3
CE-241L	Organic Chemistry I Laboratory	1
PH-105	Physics for the Life Sciences I	3
PH-105L	Physics for the Life Sciences I Laboratory	1
PH-106	Physics for the Life Sciences II	3
PH-106L	Physics for the Life Sciences II Laboratory	1
Free Electives (9 credits) [3]		
Complete up to 9 credits of free electives [3]		9
General Education Requirements (30 credits) [4]		
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	BY-110 Introduction to Cell and Molecular Biology or 109	4
BY-119 Introductory Biology Major Seminar	1	EN-102 College Composition II	3
BY-109 Introduction to Ecology and Evolution or 110	4	CE-112 & 112L (Gen*Ed Natural Science (NS) BY,CE,PH,SC,GL)	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-216 Introduction to Genetics	4	BY-205 Zoology	3
BY-220 Environmental Biology and Policy	3	BY-214 Botany	3
CE-241 & 241L	4	MA-151 Statistics with Applications	3
Gen*Ed Aesthetics (AT) AR,DA,MU,TH	3	MEBP Elective	3
		Gen*Ed Literature (LIT)	3
Semester Credits	**14**	**Semester Credits**	**15**

Third Year

Fall	Credits	Spring	Credits
BY-341 Marine Biology	4	BY-342 Coastal Zone Management	3
PH-105 & 105L	4	BY-395 Seminar in Marine and Environmental Biology	3
MEBP elective (see curriculum chart)	3	PH-106 & 106L	4
Gen*Ed Cultural Diversity (CD) or Global Understanding (GU)	3	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 (see curriculum chart)	4	Gen*Ed History Survey (HS.SV)	3
PR-4xx Interdisciplinary Perspectives (ISP)	3	MEBP Elective (see curriculum chart)	3
Gen*Ed Historical Perspectives (HS.SV) or Social Science Survey (SS.SV)	3	Free Elective	3
Free Elective	3		
Semester Credits	**17**	**Semester Credits**	**12**

Total Credits 120