

# B.A. IN MARINE AFFAIRS

## Overview

Marine Affairs prepares students to contribute to the policy development and management of marine resources through integration of scientific, economic and social perspectives. Research at UM focuses on fisheries management, political ecology, natural resource economics, coastal zone management, marine spatial planning and marine protected areas, coastal and ocean law, and marine cultural resources.

This program is designed for students who wish to prepare themselves for graduate studies and careers in marine policy, political ecology, marine resource economics, management and conservation of marine resources, environmental impact analysis, marine cultural resources, marine anthropology, spatial planning, ocean and coastal law and policy.

## Curriculum Requirements

Code	Title	Credit Hours
<b>Marine Affairs</b>		
MSC 111	Introduction to Marine Science	3
MSC 112	Introduction to Marine Science Lab	1
MSC 217	Physical and Chemical Processes in Coastal Ecosystems	3
MBE 230	Introduction to Marine Biology	3
MSC 313	Coastal Law	3
or MSC 314	Ocean Law	
MBE 310	Living Resources of the Ocean	3
or MSC 340	Ocean Policy	
MSC 345	Economics of Natural Resources and the Environment	3
MSC 460	Spatial Applications in Marine Science	3
Select 9 credit hours of approved Marine Affairs electives., <sup>1</sup>		9
<b>Other Required Courses</b>		
BIL 150	General Biology <sup>2</sup>	4
BIL 160	Evolution and Biodiversity <sup>2</sup>	4
CHM 110	Chemical Problem Solving <sup>3</sup>	3
CHM 121	Principles of Chemistry <sup>4</sup>	4
ECO 211	Principles of Microeconomics	3
Select one of the following:		3-4
GSC 110	The Earth System	
GSC 111	Earth System History	
MSC 424	Origin and Geology of the Galapagos Islands.	
Select one of the following: (MTH 108 or higher fulfills the Rosenstiel BAMA quantitative skills requirement)		3-4
MTH 108	Precalculus Mathematics II	
MTH 113	Finite Mathematics	
MTH 130	Introductory Calculus	
MTH 140	Calculus Concepts with Foundations A	
MTH 161	Calculus I	
or MTH 171	Calculus I	
Select one of the following:		3-4
MSC 204	Environmental Statistics	
MTH 224	Introduction to Probability and Statistics	
MSC 203	Foundations of Computational Marine Science	
Approved People & Society or STEM Minor		15
<b>General Education Requirements</b>		
Written Communication Skills:		
WRS 105	First-Year Writing I	3
WRS 107	First-Year Writing II: STEM	3
or WRS 106	First-Year Writing II	

Quantitative Skills:	
MTH 108 or higher (fulfilled through the major)	
Areas of Knowledge:	
Arts and Humanities Cognate	9
People & Society Cognate (9 credits) (fulfilled through the STEM major or the People & Society minor)	
STEM Cognate (9 credits) (fulfilled through the P&S major or the STEM minor)	
<b>Additional Electives</b>	<b>30-33</b>
<b>Total Credit Hours</b>	<b>121</b>

- <sup>1</sup> At least 6 of which must be at the 300-level or higher. MSC 204 does not satisfy the Marine Affairs elective requirement but does satisfy the Statistics requirement.
- <sup>2</sup> General Biology BIL 150 and Evolution and Biodiversity BIL 160 must be passed with a grade of "C-" or higher.
- <sup>3</sup> Chemical Problem Solving must be passed with a grade of "C-" or higher.
- <sup>4</sup> CHM 121 or STEM elective course as approved by Marine Affairs academic advisor..
- \* 500-level courses offered through the graduate Environmental Science and Policy program at the Rosenstiel School may be taken by Junior or Senior students with permission.

## Suggested Plan of Study (STEM Major)

Freshman Year		Credit Hours
<b>Fall</b>		
MSC 111	Introduction to Marine Science	3
MSC 112	Introduction to Marine Science Lab	1
CHM 110	Chemical Problem Solving	3
MTH 113	Finite Mathematics	3
WRS 105	First-Year Writing I	3
Minor Course #1		3
<b>Credit Hours</b>		<b>16</b>
<b>Spring</b>		
BIL 150	General Biology	4
GSC 110	The Earth System	4
WRS 107	First-Year Writing II: STEM	3
ECO 211	Principles of Microeconomics	3
<b>Credit Hours</b>		<b>14</b>
<b>Sophomore Year</b>		
<b>Fall</b>		
MBE 230	Introduction to Marine Biology	3
MSC 204	Environmental Statistics	3
BIL 160	Evolution and Biodiversity	4
CHM 121	Principles of Chemistry <sup>1</sup>	4
HUM Course #1		3
<b>Credit Hours</b>		<b>17</b>
<b>Spring</b>		
MSC 217	Physical and Chemical Processes in Coastal Ecosystems	3
MSC Course		3
Minor Course #2		3
HUM Course #2		3
Elective #1		3
<b>Credit Hours</b>		<b>15</b>
<b>Junior Year</b>		
<b>Fall</b>		
MSC 313	Coastal Law	3
MSC COURSE		3

Minor Course #3		3
HUM Course #3		3
Elective #2		3
	<b>Credit Hours</b>	<b>15</b>
<b>Spring</b>		
MSC 345	Economics of Natural Resources and the Environment	3
Minor Course #4		3
Elective #3		3
Elective #4		3
Elective #5		3
	<b>Credit Hours</b>	<b>15</b>
<b>Senior Year</b>		
<b>Fall</b>		
MSC 340	Ocean Policy	3
MSC Course		3
Minor Course #5		3
Elective #6		3
Elective #7		3
	<b>Credit Hours</b>	<b>15</b>
<b>Spring</b>		
MSC 460	Spatial Applications in Marine Science	3
Elective #8		3
Elective #9		3
Elective #10		3
Elective #11		2
	<b>Credit Hours</b>	<b>14</b>
	<b>Total Credit Hours</b>	<b>121</b>

<sup>1</sup> CHM 121 (<https://bulletin.miami.edu/search/?P=CHM%20121>) or STEM elective course as approved by Marine Affairs academic advisor.

## Mission

The mission of the Rosenstiel School of Marine, Atmospheric, and Earth Science is to deepen our collective knowledge of our planet through cutting-edge scientific research on the oceans, atmosphere, geology, biota, and the human dimension, while training the next generation of scientists. We transfer the knowledge gained to our students, the national and international scientific community, and to policymakers and the public.

The educational mission of the BA degree in Marine Affairs at the University of Miami is to graduate students with the ability and desire to integrate knowledge of marine affairs and policy into their future careers.

## Goals

This program strives to provide the rigor, flexibility, depth and integration to enable students to:

- Pursue a course of study that provides both depth and breadth in marine affairs and related science and policy courses.
- Prepare themselves for public and private sector employment, graduate school, and successful careers.

## Student Learning Outcomes

- Students will demonstrate an ability to communicate effectively.
- Students will demonstrate an overall knowledge and understanding of the core concepts in Marine Affairs.
- Students will be able to successfully integrate important concepts in marine affairs to address a real-world issue in marine policy and marine resource management.