

**ABOUT THE BS in MARINE BIOLOGY:**

The B.S. Marine Biology allows students to explore the vast world of marine biology while providing an important foundation in modern biological sciences and other supporting sciences. It is designed for students who plan to work in marine biology, marine ecology, biological oceanography, marine conservation, or related fields at a professional level, or who wish to apply their training to a wide range of other exciting careers. We encourage students to participate in lab, field and shipboard research with faculty and other researchers and to develop and conduct original research in their areas of interest. Graduates get jobs in a variety of marine and environmental fields, or continue their education in graduate school in areas such as marine biology, oceanography and related fields; some students have gone on to Veterinary School. Please consult the Marine Biology website at: [web.uri.edu/marbio](http://web.uri.edu/marbio).

**Courses for Major (36 Credits)****BIOLOGY COURSE Requirement: (17 credits)***Must earn a C or better in BIO 101, 102, 103, 104*

Course	Semester	Credits	Grade
*BIO 101 or 101H			
*BIO 102			
*BIO 103			
*BIO 104			
BIO 130			
BIO 352			
BIO 360			

**BIOLOGY CORE Requirement (9-12 credits)**Pick a total of **THREE (3)** courses; each course must be in a different category (FIVE (5) categories are below).**Cell & Development:** BIO 302, 311, 341

Course	Semester	Credits	Grade

**Ecology & Evolution:** BIO 262, 272

Course	Semester	Credits	Grade

**Molecular Biology:** BIO 437

Course	Semester	Credits	Grade

**Organismal Biology:** BIO 308, 310, 321, 323, 354, 365, 366, 385, 404, 412, 417, \*425G, \*CMB 211

Course	Semester	Credits	Grade

**Physiology:** BIO 201, 346

Course	Semester	Credits	Grade

\*Course approved for General Education credit.

\*\*Courses taught at the Bermuda Institute of Ocean Sciences.

\*\*\*No more than 3 credits of Directed Research/Special Problems (491, 492, 495) may be used towards the 36 credits of Biology and Marine Biology courses required for the major.

**MARINE BIOLOGY ELECTIVE Requirement: (balance of 36 credits)****Choose from the following:** Marine Biology Electives and other courses- by approved Curriculum Modification or Pre-Approval of Transfer Credit.**BIO:** \*256G, 308, 310, 345, 354, 355, 365, 412, 416, 422, \*425G, 441, 455, 457, 485, \*\*469, \*\*475, 563**AFS:** 415, 486    **AVS:** 440**NRS:** 475**OCE:** 575    **OCG:** 420, 480, 561, 576**\*\*\*Directed Research/Special Problems from the following:**

AFS, AVS, BIO 491, 492, \*\*495, CMB, NRS, OCE, OCG 493 or 494, PLS 491 or 492

Course	Semester	Credits	Grade

Must earn a 2.0 GPA in these 36 credits in order to graduate.

**LAB Requirement:**

Students must take two courses that include a lab or lab courses in addition to BIO 103, 104, and 360, from among the courses used to satisfy BIOLOGY CORE or MARINE BIOLOGY ELECTIVE requirements, but excluding Independent Research or Special Projects/Special Problems.

**Example:** BIO 201 (lecture/lab) can be used to satisfy the Core requirement AND the Lab requirement, but BIO 491, 492, and 495 cannot count towards the Lab requirement.

Course	Semester

## Introductory and Supporting Sciences 35-38 Credits

### CHEMISTRY Requirement: (15-16 credits)

Course	Semester	Credits	Grade
*CHM 101		3	
CHM 102		1	
<b>OR</b>			
CHM 191		5	

Course	Semester	Credits	Grade
CHM 112		3	
CHM 114		1	
<b>OR</b>			
CHM 192		5	

Course	Semester	Credits	Grade
CHM 124		3	
CHM 126		1	
CMB 311		3	
<b>OR</b>			
CHM 227		3	
CHM 228		3	
CHM 226		2	

### MATH Requirement: (6-8 credits)

Course	Semester	Credits	Grade
*MTH 131		3	
<b>OR</b>			
*MTH 141		4	

Course	Semester	Credits	Grade
MTH 132		3	
<b>OR</b>			
*MTH 142		4	
<b>OR</b>			
STA 308		4	

### PHYSICS Requirement: (8 credits)

Course	Semester	Credits	Grade
*PHY 111		3	
*PHY 185		1	
<b>OR</b>			
*PHY 203		3	
*PHY 273		1	

Course	Semester	Credits	Grade
*PHY 112		3	
*PHY 186		1	
<b>OR</b>			
*PHY 204		3	
*PHY 274		1	

### OCEANOGRAPHY Requirement: (3 credits)

Pick 1 of the following:

Course	Semester	Credits	Grade
OCG 301 (Fall)		3	
<b>OR</b>			
OCG 451 (Spring)		3	

### WRITING Requirement: (3 credits)

Pick 1 of the following:

Course	Semester	Credits	Grade
*WRT 104		3	
<b>OR</b>			
*WRT 106		3	

\*Course approved for General Education credit.

Advising Notes:

## 120 Credits Total

### General Education Guidelines:

**The requirement for transfer to CELS from University College for Academic Success is:**

General Education Outcome Audit		
	Course	Grade
<b>KNOWLEDGE</b>		
<b>A1. STEM</b>	*BIO101	
<b>A2. Social &amp; Behavioral Sciences</b>		
<b>A3. Humanities</b>		
<b>A4. Arts &amp; Design</b>		
<b>COMPETENCIES</b>		
<b>B1. Write effectively</b>		
<b>B2. Communicate effectively</b>		
<b>B3. Mathematical, statistical, or computational strategies</b>	*MTH ____	
<b>B4. Information literacy</b>		
<b>RESPONSIBILITIES</b>		
<b>C1. Civic knowledge &amp; responsibilities</b>		
<b>C2. Global responsibilities</b>		
<b>C3. Diversity &amp; Inclusion</b>		
<b>INTEGRATE &amp; APPLY</b>		
<b>D1. Ability to synthesize</b>		
<b>GRAND CHALLENGE</b>		
<b>G. At least one course of your 40 credits is an approved "G" course</b>		

<b>General Education Credit Count</b>					
At least 40 credits, no more than 12 credits with the same course code.					
<b>Course</b>	<b>Cr.</b>	<b>Grade</b>	<b>Course</b>	<b>Cr.</b>	<b>Grade</b>
*BIO101	3				
*BIO103	1				
*BIO102	3				
*BIO104	1				
*CHM 101	3				
*MTH ____					
			Total Gen Ed Credits		

Course	Semester	Credits	Grade

Course	Semester	Credits	Grade

**TOTAL:**

/120

**B.S. Marine Biology**  
**Sample 4 Year Plan - Effective Fall 2023**  
*College of the Environment and Life Sciences*

**Freshman Year Fall Semester**

Course Code	Description	Cr
*BIO 101, 103	Principles of Biology, Lab	4
*CHM 101, 102	General Chemistry, Lab	4
*MTH 111 or *MTH 131	Precalculus or Applied Calculus 1	3
	*General Education Course	3-4
BIO 130	Topics in Marine Biology	1
		15-17

**Freshman Year Spring Semester**

Course Code	Description	Cr
*BIO 102, 104	Principles of Biology II, Lab	4
CHM 112, 114	General Chemistry II, Lab	4
MTH *131, 132, or STA 308	Applied Calculus, Applied Calculus II, or Statistics	3-4
	*General Education Course	3-4
		15-17

**Year 1 Milestones:** Complete BIO 101, 103, 102, 104, CHM 101, 102, 112, 114, MTH 131, and MTH 132 or STA 308

**Sophomore Year Fall Semester**

Course Code	Description	Cr
BIO 360 or Marine BIO core	Marine Biology or Biology Core	3-4
CHM 124,126, or 227 or 112,114	Intro to Organic Chem., Lab, or Organic Chemistry Lecture or General Chemistry Lecture 2, Lab	4
Elective or *MTH 132 or STA 308	Elective, or Applied Calculus II, or Statistics	3-4
	*General Education Course	3-4
		15-17

**Sophomore Year Spring Semester**

Course Code	Description	Cr
BIO 360 or Marine BIO Core	Marine Biology or Biology Core	3-4
BIO Core or Marine Biology Elective	Biology Core or Marine Biology Elective	3-4
CHM 124,126 or 227 or 228 or CMB 311	Intro. to Organic Chem., Lab, or Organic Chem. Lecture 1, or 2, or Intro. Biochemistry	3-5
	*General Education Course	3-4
		15-17

**Year 2 Milestones:** Complete BIO 360 and begin organic chemistry sequence. Meet with faculty advisor to discuss Year 3 courses, research and internship opportunities.

**Junior Year Fall Semester**

Course Code	Description	Cr
BIO 352 or Marine Biology Elective	General Genetics or Marine Biology Elective	3-4
PHY 111, 185	General Physics, Lab	4
CHM 226 and/or 228 or CMB 311 or Elective	Organic Chemistry Lecture, Organic Chemistry Lecture 2, or Introductory Biochemistry, or Elective	3-5
	*General Education Course	3-4
		15-17

**Junior Year Spring Semester**

Course Code	Description	Cr
BIO 352 or Biology Core	General Genetics or Biology Core	3-4
	Marine BIO Elective	3-4
PHY 112, 186	General Physics 2, Lab	4
*Gen Ed or CMB 311	*General Education Course or Introduction to Biochemistry	3-4
		15-17

**Year 3 Milestones:** Complete PHY 111, 185, 112, 186, finish organic chemistry sequence. Prepare intent to graduate with professional advisor for fall submission.

**Senior Year Fall Semester**

Course Code	Description	Cr
	Marine Biology Elective	3-4
	Marine Biology Elective	3-4
	*General Education Course	3-4
OCG 301	General Oceanography	3-4
		15-17

**Senior Year Spring Semester**

Course Code	Description	Cr
	Marine Biology Elective	3-4
	Marine Biology Elective	3-4
	*General Education Course or Elective	3-4
Elective	Elective	3-4
		15-17

**Year 4 Milestones:** OCG 301 (Fall) or 451 (Spring), finish Marine Biology electives and general education.  
**Minimum of 120 credits to graduate.**  
**Minimum 2.0 cumulative GPA required in the 36 credits in BIO/Marine Biology for graduation.**  
**Minimum overall 2.0 cumulative GPA required for graduation.**