

# BIOLOGY - MARINE BIOLOGY (BACHELOR OF SCIENCE)

Marine Biology is for majors who plan to enter graduate school or have careers in marine biology research, environmental assessment, or education. The department is an active member of Alabama's Marine Environmental Sciences Consortium. Summer study at the Dauphin Island Sea Lab is required.

Course	Title	Credits
<b>Jax MIX General Education Curriculum</b>		<b>41</b>

The requirements for the major in Biology are:

Course	Title	Credits
<b>Freshman Biology Sequence</b>		
BY 101	Introductory Biology I	3
BY 102	Introductory Biology II	3
BY 103	Introductory Biology Lab I	1
BY 104	Introductory Biology Lab II	1
<b>Biology Core Courses</b>		
BY 322	Genetics (WI)	4
BY 324	Introduction to Evolutionary Biology	3
BY 332	Ecology	4
BY 373	Cell Biology	4
<b>Biology concentration (see requirements below)</b>		<b>15</b>
<b>Senior Seminar</b>		
BY 496	Senior Seminar (WI)	1
<b>Freshman Chemistry Sequence</b>		
CY 105	General Chemistry I	3
CY 106	General Chemistry II	3
CY 107	General Chemistry Laboratory I	1
CY 108	General Chemistry Laboratory II	1
<b>Organic Chemistry sequence</b>		
CY 231	Organic Chemistry I	4
CY 232	Organic Chemistry II	4
<b>Mathematics</b>		
Select one of the following:		3-4
MS 113	Precalculus Trigonometry	
MS 125	Calculus I	
or higher		
<b>Computer Science</b>		
CS 201	Introduction to Information Technology	3
<b>Physics Sequence</b>		
PHS 201 & PHS 203	College Physics I and College Physics Laboratory Techniques I	4
PHS 202 & PHS 204	College Physics II and College Physics Laboratory Techniques II	4
<b>Total Hours</b>		<b>69-70</b>

In addition to the requirements for the BS in Biology, the Marine Biology concentration requires 16 credit hours of marine biology courses which are offered during the summer only at the Dauphin Island Sea Lab (DISL). The following courses are required:

Course	Title	Credits
MBY 411	Marine Ecology	4
or MBY 461	Marine Behavioral Ecology	
Select one of the following:		4
MBY 481	Marine Mammals	
MBY 486	Marine Vertebrate Zoology	
MBY 487	Marine Invertebrate Zoology	
Select one of the following:		4
MBY 415	Marine Botany	
MBY 423	Marsh Ecology	
MBY 439	Coastal Wetlands Ecology	
Select four hours of Marine Biology at the 300 or 400 level		4
<b>Total Hours</b>		<b>16</b>

Marine Biology electives must be approved by the JSU marine biology advisor. Students interested in marine biology must consult with the Biology Department's marine biology advisor for information about the concentrations, actual summer offerings at DISL, JSU Sea Lab Scholarships, application, and registration. Special fees and course availability are determined by DISL. Registration for DISL courses occurs during February each year.

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations. More information about Jax MIX requirements (<https://catalog.jsu.edu/undergraduate/jax-mix-requirements/>) and Alabama Transfers equivalents (<https://catalog.jsu.edu/undergraduate/alabama-transfers-equivalents/>) can be found in their respective section of the catalog.*

Freshman		Hours
<b>Fall</b>		
Jax MIX Communication: EH Composition sequence		3
BY 101	Introductory Biology I	4
& BY 103	and Introductory Biology Lab I (Jax MIX Inquiry)	
MS 112	Precalculus Algebra (or higher - Jax MIX Communication)	3
CY 105 & CY 107	General Chemistry I and General Chemistry Laboratory I	4
SSC 101	First Year Experience	0
<b>Hours</b>		<b>14</b>
<b>Spring</b>		
Jax MIX Communication: EH Composition sequence		3
BY 102 & BY 104	Introductory Biology II and Introductory Biology Lab II (Jax MIX Inquiry)	4
CY 106 & CY 108	General Chemistry II and General Chemistry Laboratory II	4
MS 113	Precalculus Trigonometry (or higher)	3
<b>Hours</b>		<b>14</b>
<b>Sophomore</b>		
<b>Fall</b>		
Jax MIX Expression: Literature		3
Jax MIX Experience: History sequence		3
CY 232	Organic Chemistry II	4
Biology Core		4
<b>Hours</b>		<b>14</b>
<b>Spring</b>		
Jax MIX Expression: Literature		3
Jax MIX Experience: History sequence		3
CY 231	Organic Chemistry I	4
Biology Core		4
<b>Hours</b>		<b>14</b>

2 Biology - Marine Biology (Bachelor of Science)

**Junior**

<b>Fall</b>		
EH 141	Speech (Jax MIX Communication)	3
Jax MIX Experience: Social/Behavioral Science		3
PHS 201 & PHS 203	College Physics I and College Physics Laboratory Techniques I <sup>1</sup>	4
Biology Core		4
<b>Hours</b>		<b>14</b>

<b>Spring</b>		
Jax MIX Experience: Social/Behavioral Science		3
CS 201	Introduction to Information Technology (or higher )	3
PHS 202 & PHS 204	College Physics II and College Physics Laboratory Techniques II <sup>1</sup>	4
Biology Core		3
Electives		3
<b>Hours</b>		<b>16</b>

<b>Summer</b>		
In Residence at Dauphin Island Sea Lab		
MBY 411 or MBY 461	Marine Ecology or Marine Behavioral Ecology	4
Select one of the following:		4
MBY 481	Marine Mammals	
MBY 486	Marine Vertebrate Zoology	
MBY 487	Marine Invertebrate Zoology	
<b>Hours</b>		<b>8</b>

<b>Senior</b>		
<b>Fall</b>		
Jax MIX Expression: Fine Arts		3
Electives		9
<b>Hours</b>		<b>12</b>
<b>Spring</b>		
BY 496	Senior Seminar (WI)	1
Electives		5
<b>Hours</b>		<b>6</b>

<b>Summer</b>		
In Residence at Dauphin Island Sea Lab		
Marine Biology Elective <sup>2</sup>		4
Select one of the following:		4
MBY 415	Marine Botany	
MBY 423	Marsh Ecology	
MBY 439	Coastal Wetlands Ecology	
<b>Hours</b>		<b>8</b>
<b>Total Hours</b>		<b>120</b>

<sup>1</sup> Students may elect to take calculus-based PHS 221 Physics for Scientists and Engineers I w/Lab (4)/PHS 222 Physics for Scientists and Engineers II w/Lab (4) in place of PHS 201 College Physics I (3)/PHS 202 College Physics II (3).

<sup>2</sup> Marine Biology elective (see marine biology program advisor for current list of approved courses).