# Biology, B.S. - Marine Biology Option

## Major in Biology, BS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>CORE COURSES</strong></td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Foundations of Biology - See Appendix 1</td>
<td></td>
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<tr>
<td>BIOL 211</td>
<td>Concepts of Zoology</td>
<td></td>
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<tr>
<td>BIOL 221</td>
<td>Concepts of Botany</td>
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<tr>
<td>BIOL 343</td>
<td>Principles of Ecology &amp; Evolution</td>
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<tr>
<td>BIOL 362</td>
<td>Cell and Developmental Biology</td>
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<tr>
<td>BIOL 364</td>
<td>Foundations of Genetics &amp; Molecular Biology</td>
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<td></td>
<td><strong>Option in Marine Biology - See separate block</strong></td>
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<td></td>
<td><strong>Total Hours</strong></td>
<td>24</td>
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## Appendix 1. Foundations of Biology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 101</td>
<td>Foundations of Biology C- or Higher</td>
<td>4</td>
</tr>
</tbody>
</table>

## Concentration in Marine Biology

Students majoring in Marine Biology are encouraged to consider completing a minor in Oceanography and, in consultation with their advisor, to take further courses in mathematics.

### REQUIRED MARINE BIOLOGY COURSES

Required Marine Biology (4 credits) - Choose 1 of the following options 1-2:

- **Option 1. Marine Biology**
  - BIOL 291 | Marine Biology
- **Option 2. Coastal Marine Biology and Problem Solving Marine Biol**
  - BIOL 290 | Coastal Marine Biology
  - BIOL 292 | Problem Solving in Marine Biol
  - BIOL 295 | Marine Invertebrates
  - BIOL 375 | Biometry
  - BIOL 396 | Ichthyology
- **Biological Oceanography - Choose 1 of the following**:
  - BIOL 495 | Biological Oceanography
  - ESCI 465 | Biological Oceanography
- **Seminar in Marine Biology**
  - BIOL 472 | Seminar In Biology

### ELECTIVES

undefined - Choose 5 hours from:

- Any 3-level BIOL course(s)
- Any 4-level BIOL course(s)

Note: This requirement may not be satisfied with BIOL 340 or BIOL 390.

In consultation with your advisor, choose additional courses at the 300-level or higher and approved for Biology majors to bring total credits in major to the minimum 47.

## MARINE SCIENCE FIELD COURSES

undefined - Choose 2 classes totaling at least 6 hours from:

### Req Related for Biology, BS

For Biology Majors the G2 block of the Liberal Arts Core will be fulfilled by your required related coursework.

### CHEMISTRY AND EARTH SCIENCES

A C- or higher in CHEM 111 and 112 is a pre-requisite for CHEM 235. A C- or higher in CHEM 231 is a pre-requisite for CHEM 232. Students interested in graduate or professional school should take CHEM 231 and 232.

- **Introduction to Oceanography** | 4
- ESCI 261 | Introduction to Oceanography
- CHEM 111 | Introductory Chemistry 1 | 4
- CHEM 112 | Introductory Chemistry 2 | 4
- **Organic Chemistry - Choose 1 of the following options 1-2:** | 4-8
  - **Option 1. Organic Chemistry I and II**
    - CHEM 231 | Organic Chemistry 1
    - CHEM 232 | Organic Chemistry 2
  - **Option 2. Short Course in Organic Chemistry**
    - CHEM 235 | Organic Chemistry
- **Environmental Chem or Chem Oceanography - Choose 1 of the following** | 3-4
  - CHEM 375 | Environmental Chemistry
  - ESCI 363 | Chemical Oceanography

### MATHEMATICS FOR MARINE BIOLOGY

Calculus for Mgt, Calculus I or Honors Calculus - Choose 1 of the following:

- MATH 151 | Calculus for Management
- MATH 161 | Calculus 1
- MATH 163H | Honors Calculus 1

### PHYSICS

undefined - Choose 1 of the following options 1-2: | 8-10

- **Option 1. Physics with Algebra**
  - PHYS 131 | Physics 1 with Algebra
  - PHYS 132 | Physics 2 with Algebra
  - **Option 2. Physics with Calculus**
  - PHYS 231 | Physics 1 with Calculus
  - PHYS 232 | Physics 2 with Calculus

## Total Hours

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIOL 293</td>
<td>Coastal Ornithology</td>
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</tr>
<tr>
<td>BIOL 294</td>
<td>Coral Reef Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOL 295</td>
<td>Marine Invertebrates</td>
<td></td>
</tr>
<tr>
<td>BIOL 296</td>
<td>Marine Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOL 392</td>
<td>Marine Mammals</td>
<td></td>
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<tr>
<td>BIOL 397</td>
<td>Marine Botany</td>
<td></td>
</tr>
<tr>
<td>BIOL 398</td>
<td>Any course(s) with DWLOCATION = W</td>
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At least 2 courses (6 credits) of a student’s biology courses (required marine biology or biology electives) must be taken at a marine field site.

**Total Hours**: 29