# BIOLOGY, B.S. - MARINE BIOLOGY OPTION

## Major in Biology, BS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td><strong>CORE COURSES</strong> - See Appendix 1</td>
<td>24</td>
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<tr>
<td>BIOL 211</td>
<td>Concepts of Zoology</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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<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><strong>Option in Marine Biology</strong> - See separate block</td>
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Total Hours: 24

## Appendix 1. Foundations of Biology

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<tr>
<th>Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td>BIOL 101</td>
<td>Foundations of Biology C- or Higher</td>
<td>4</td>
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## 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: 4
  - 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 3
  - BIOL 375 Biometry 3
  - BIOL 396 Ichthyology 3

- Biological Oceanography - Choose 1 of the following: 3-4
  - BIOL 495 Biological Oceanography
  - ESCI 465 Biological Oceanography

- Seminar in Marine Biology 2

### ELECTIVES

- undefined - Choose 5 hours from: 5
  - 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: 6
  - BIOL 293 Coastal Ornithology
  - BIOL 294 Coral Reef Ecology
  - BIOL 295 Marine Invertebrates
  - BIOL 296 Marine Ecology
  - BIOL 392 Marine Mammals
  - BIOL 397 Marine Botany
  - Any course(s) with DWLOCATION = W
  - 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

## Req Related for Biology, BS

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<td>For Biology Majors the G2 block of the Liberal Arts Core will be fulfilled by your required related coursework.</td>
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### 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 375 Environmental Chemistry
- ESCI 363 Chemical Oceanography

### MATHEMATICS FOR MARINE BIOLOGY

- Calculus for Mgt, Calculus I or Honors Calculus - Choose 1 of the following: 4-5
  - 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: 31-39