**MARINE BIOLOGY - BS**

This program explores the biological sciences through studies in the unique coastal environment. The curriculum offers broad training in general biology, while emphasizing the local flora and fauna in estuaries and the marine environment. Students receive hands-on field sampling experience as well as internship and research opportunities. Students may take electives to emphasize certain interests such as vertebrate zoology, coastal wetlands ecology, conservation, comprehensive biology, fisheries biology, mammalogy, and aquatic animal health. Students may also choose electives to allow them to pursue medical or veterinary degree programs.

### Program Requirements

#### First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 111 Introductory Biology I 1,2</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 101 Fundamentals of Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 111 Fundamentals of Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 142 Business Calculus 3,4 or MATH 151 Engineering Mathematics I</td>
<td>3</td>
</tr>
<tr>
<td>American history (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history</a>)</td>
<td>3</td>
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</tbody>
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#### Second Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 227 Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 237 Organic Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>MARB 315 Natural History of Vertebrates 2</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 201 College Physics or PHYS 218 Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>POLS 206 American National Government</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Spring</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 228 Organic Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 238 Organic Chemistry Laboratory</td>
<td>1</td>
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</table>

#### Third Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 210 Technical and Business Writing</td>
<td>3</td>
</tr>
<tr>
<td>MARB 301 Genetics 2</td>
<td>4</td>
</tr>
<tr>
<td>Marine biology elective 2,5</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARB 310 Introduction to Cell Biology 2</td>
<td>4</td>
</tr>
<tr>
<td>MARB 435 Marine Invertebrate Zoology 2,6</td>
<td>4</td>
</tr>
<tr>
<td>Marine biology elective 2,5</td>
<td>4</td>
</tr>
<tr>
<td>Social and behavioral sciences (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences</a>)</td>
<td>3</td>
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</tbody>
</table>

#### Fourth Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARB 420 Comparative Animal Physiology 2</td>
<td>4</td>
</tr>
<tr>
<td>MARB 482 Seminar in Marine Biology 2,6</td>
<td>1</td>
</tr>
<tr>
<td>Earth science elective 7</td>
<td>3</td>
</tr>
<tr>
<td>Marine biology elective 2,5</td>
<td>4</td>
</tr>
<tr>
<td>Creative arts (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts</a>)</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Langauge, philosophy and culture (<a href="http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture">http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture</a>)</td>
<td>3</td>
</tr>
<tr>
<td>Marine biology elective 2,5</td>
<td>4</td>
</tr>
<tr>
<td>Total Semester Credit Hours</td>
<td>120</td>
</tr>
</tbody>
</table>

All electives must be chosen in consultation with, and approved by, the student’s academic advisor. Unless courses are specifically listed, see University Core Curriculum at http://core.tamu.edu/ for a listing of course options for Communication; Mathematics; Life and Physical Sciences; Language, Philosophy and Culture; Creative Arts; American History, Government and Political Sciences; and Social and Behavioral Sciences. The 6-hour University Core Curriculum requirement for International and Cultural Diversity may be met with courses used to satisfy other degree requirements. Up to 4 hours of MARB 491 and/or MARB 484 may be used as marine biology elective courses in your curriculum. Please consult with your academic advisor.

1 A grade of C or better is required before advancing to upper level courses.

2 Indicates required courses in the Marine Biology major. These courses will be used to compute the major GPR.
The total hours may be increased if the student is required to take remedial math, remedial English, foreign language or International and Cultural Diversity courses.

There are two mathematics course requirements. The first is MATH 142 or 151. The other math course shall be selected from MATH 141, 150, 152, or PHIL 240. Depending on the math sequence selected, the number of credit hours may vary by 1 or 2 credits. Credit will not be given for both MATH 151 and MATH 142.

20 credit hours of biology electives required. A minimum of 12 credit hours must be taken from the following: BIOL 351; MARB 311, MARB 330, MARB 335, MARB 340, MARB 360, MARB 400, MARB 401, MARB 403, MARB 404, MARB 407, MARB 408, MARB 410, MARB 430, MARB 466; MARS 360. For the remainder of the 20 hours of marine biology electives, students may take a maximum of two mammals courses (selected from MARB 400, MARB 401, MARB 403, MARB 404, MARB 407), one of the two MARB scientific diving courses (either MARB 345 or MARB 350), or any other MARB 300-499 level classes.

Designated writing intensive course.

The Earth Science elective may be chosen from GEOL 101-499, OCNG 251-499, or METR 302.

MARB 408, which is offered in the Spring semester, can be substituted for MARB 430. MARB 408 is also a writing intensive course.