## Undergraduate Degree Program
### Marine Biology - BS

### Mission Statement
The aim of the Marine Biology degree program is to provide a strong foundation in Cell Biology; Molecular Biology and Genetics; Organismal Biology; and Population Biology, Evolution and Ecology. Emphasis will be placed on marine organisms and ecosystems, taking advantage of ready access to the diverse marine environments of Florida and the Caribbean. This field of study will prepare students for further graduate and professional studies, as well as for employment in areas that require university-level training in Marine Biology and Oceanography.

### Student Learning Outcomes
FIU Marine Biology - BS graduates should be able to achieve the following:

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<th>Content/Discipline Knowledge Skills</th>
<th>Direct Measures</th>
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<td>Graduates will demonstrate competency in the subject knowledge of Marine Biology demonstrating the ability to explain the principles of Cell Biology, Molecular Biology, Genetics, Organismal Biology, Population Biology, Evolution, and Ecology.</td>
<td><strong>Procedure:</strong> Marine Biology majors’ knowledge of marine biology will be assessed in two ways: 1. Students will take the ETS field examination in Biology that assesses four indicators of subject knowledge. 2. Students will also take a departmental exit examination comprised of 30 questions. The exam assesses one additional indicator of subject knowledge:  • Apply the principles of biology to marine organisms and ecosystems.</td>
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### Sampling:
All students will be assessed in the capstone course, BSC 4931 Senior Seminar, each semester.

### Minimum Criteria for Success:
Graduates will demonstrate competency in the subject knowledge of Marine Biology demonstrating the ability to explain the principles of Cell Biology, Molecular Biology, Genetics, Organismal Biology, Population Biology, Evolution, and Ecology.
1. Graduates will score at or above the 50th percentile for each indicator (subscore) and for the total score.
2. Graduates will score at or above 70% on this exam.

**Technology Integration:**
Graduates will demonstrate competency in using technology to present ideas by using PowerPoint and other multimedia tools.

**Procedure:**
This outcome will not be implemented until AY 2016-2017. An assessment method is currently being developed.

**Critical Thinking Skills**
Graduates will demonstrate their ability to think critically in terms of identifying and summarizing a problem or question, analyzing and examining ideas and research findings, assessing the influence of context, and constructing and interpreting information within Marine Biology.

**Direct Measures**

**Procedure:**
A three-member faculty panel will use a rubric describing 4 indicators of critical thinking (5 point rating scale; 20 point maximum) to assess the research paper required in the capstone course. A mean score for each student will be obtained from the faculty ratings.

**Sampling:**
All students will be assessed in the capstone course, BSC 4931 Senior Seminar, each semester.

**Minimum Criteria for Success:**
Graduates will attain an average minimum score of 12 points on the critical thinking rubric.

**Communication Skills**
Graduates will demonstrate effective oral communication skills.

**Direct Measures**

**Procedure:**
A three-member faculty panel will use a rubric describing 5 indicators of oral communication skills (5 point rating scale; 25 point maximum) to assess the oral presentation required in the capstone course. A mean score for each student will be obtained from the faculty ratings.

**Sampling:**
All students will be assessed in the capstone course, BSC 4931 Senior Seminar, each semester.

**Minimum Criteria for Success:**
Graduates will attain an average minimum of 15 points for the sum of the average scores on the oral communication rubric.

| Graduates will demonstrate effective written communication skills in Marine Biology by explaining content and developing ideas, effectively organizing information, demonstrating a command of the written language, and using the conventions of language and documentation appropriately. |

A three-member faculty panel will use a rubric describing 4 indicators of written communication skills (5 point rating scale; 20 point maximum) to assess the research paper required in the capstone course. A mean score for each student will be obtained from the faculty ratings.

**Sampling:**
All students will be assessed in the capstone course, BSC 4931 Senior Seminar, each semester.

**Minimum Criteria for Success:**
Graduates will attain an average minimum of 12 points for the sum of the average scores on the written communication rubric.