

Undergraduate Degree Program

Program - CASE Marine Biology SLO (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.

Outcomes

FIU graduates should be able to achieve the following:

Content Knowledge and Skills (including Technology)	Direct Measures
<p>Content Knowledge</p> <p>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.</p>	<p>Procedure:</p> <p>Assessment Instrument: Exam (Standardized) Assessment Method: Marine Biology majors' knowledge of marine biology will be assessed in two ways:</p> <ol style="list-style-type: none"> 1. Students will take the ETS field examination in Biology that assesses four indicators of subject knowledge. Graduates will score at or above the 50th percentile for each indicator (subscore) and for the total score. 2. Students will also take a departmental exit examination comprised of 30 questions. The exam assesses one additional indicator of subject knowledge: <ul style="list-style-type: none"> - Apply the principles of biology to marine organisms and ecosystems. <p>Course Assessed: BSC 4931 Sampling: All students will be assessed in the capstone course, BSC 4931 Senior Seminar, each semester. Minimum Criteria for Success: 1. Students will score at or above the 50th percentile for each indicator in the total score. 2. Graduates will score at or above 70% on this exam.</p>
Critical Thinking	Direct Measures
<p>Critical Thinking</p> <p>B.S. 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.</p>	<p>Procedure:</p> <p>Assessment Instrument: Rubric (Analytical) Assessment Method: 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.</p> <p>Indicators</p> <ul style="list-style-type: none"> -Ideas and summarizes -Analyses and examines -Assesses -Constructs <p>Course Assessed: BSC 4931</p>

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

Minimum Criteria for Success: A mean score for each student will be obtained from the faculty ratings. Graduates will attain an average minimum score of 12-points on the critical thinking rubric.

Communication (Oral or Written)	Direct Measures
---------------------------------	-----------------

Communication Skills-Oral	Procedure:
B.S. graduates will demonstrate effective oral communication skills through their subject knowledge of Marine Biology, organization of ideas, adequate connection to an audience, efficient delivery, and appropriate use of technology.	<p>Assessment Instrument: Rubric (Analytical)</p> <p>Assessment Method: A three-member faculty panel will use the attached 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.</p> <p>Indicators</p> <ul style="list-style-type: none"> -Subject knowledge -Organization -Audience -Delivery -Technology <p>Course Assessed: BSC 4931</p> <p>Sampling: All students will be assessed in the capstone course, BSC 4931 Senior Seminar, each semester.</p> <p>Minimum Criteria for Success: A mean score for each student will be obtained from the faculty ratings. Graduates will attain an average minimum of 15-points for the sum of the average scores on the oral communication rubric.</p>

Communication Skills-Written	Procedure:
B.S. 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.	<p>Assessment Instrument: Rubric (Analytical)</p> <p>Assessment Method: 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.</p> <p>Indicators</p> <ul style="list-style-type: none"> -Content and Development -Organization -Language -Conventions <p>Course Assessed: BSC 4931</p> <p>Sampling: All students will be assessed in the capstone course, BSC 4931 Senior Seminar, each semester.</p> <p>Minimum Criteria for Success: A mean score for each student will be obtained from the faculty ratings. Graduates will attain an average minimum score of 12-points on the written communication rubric.</p>