

Florida International University

Academic Learning Compact



Name of the undergraduate degree program

Biology

Mission Statement

The aim of the Biology degree program is to provide a strong foundation in structural and developmental biology, physiology, organismal diversity, and ecology, within an evolutionary framework. 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 the life sciences.

Student Learning Outcomes

FIU Biology graduates should be able to do the following:

Content/Discipline Knowledge

1. Describe how structural complexity in living organisms is built up by combining simpler subunits into complex, adaptive combinations.
2. Explain how cells and organisms use integrated regulatory processes to maintain homeostasis.
3. Explain the principles of genetics that determine how species exist as populations that share a gene pool and how species evolve.
4. Explain the principles that govern the interaction of organisms and their environments.

Critical Thinking

1. Apply the scientific method in laboratory and field settings to solve problems in the biological sciences.
2. Select and use appropriate analysis strategies including, when applicable, statistical analyses.
3. Demonstrate the ability to gather and evaluate information critically, including the use of library and online research resources.
4. Analyze and synthesize information to draw scientifically valid conclusions.

Oral and Written Communication

1. Use biological terms and concepts accurately and effectively in written form.
2. Communicate biological information in oral form employing appropriate presentation technologies.

Direct and Indirect Measures of Student Learning Outcomes

Content/Discipline Knowledge

1. In the undergraduate capstone seminar, taken in the senior year, all Biology students will take the ETS field examination in Biology.

Critical Thinking

1. A standard scoring rubric will be used to assess students' written and oral presentations for critical thinking skills in the capstone seminar course.

Oral and Written Communication

1. A standard scoring rubric will be used to assess students' written and oral presentations for communication skills in the capstone seminar course.

