Integrative Track

Requirements for the Major in Biology - Integrative Track

The major requires successful completion of the following:

Code	Title	Semester Hours
Course Requirements [1,2]		
BIOL 130	Field Investigations in Biology	4
BIOL 133	Introductory Molecular Biology and Genetics [3]	4
BIOL 424	Senior Seminar	4
CHEM 121 and CHEM 122 [4]		8
or CHEM 151 and CHEM 152 [4]		
Select three of the following courses		12
BIOL 210	Ecology (Lab)	
BIOL 213	Evolutionary Biology	
BIOL 223	Genetics (Lab)	
BIOL 233	Molecular Cell Biology	
BIOL 243	Molecular Methods (Lab)	
BIOL 347	Stem Cells	
Select four full courses in Biology (BIOL) from courses numbered 200 or above: [2,3,5,6]		16
Total Semester Hours		**48**

Code	Title	Semester Hours
Additional Requirements		
A comprehensive examination		

1

Courses numbered below 130 do not count toward the major.

2

At least four of the required and elective biology courses must have a laboratory.

3

NEUR 208, NEUR 351, and NEUR 415 also count as upper level courses in Biology.

4

A single instance (4 credit hours) of CHEM 120 or CHEM 150 may count for this requirement if it was taken prior to the '25-'26 academic year

5

Students may only receive credit once for courses delivered as both lab and non-lab offerings.

6

The Department of Biology will allow an AP test score of 5 or a higher level IB test score of 6 or 7 to substitute for BIOL 133. Students should be advised that mastery of the material covered in BIOL 133 is important as majors will be tested on it during their comprehensive exams.

7

Students who have completed and passed the Island Ecology summer program (ESCI 240) may count it as one laboratory course in the major. For purposes of calculating GPA within the major, the grade for ESCI 240 will count as the equivalent of one biology class.

Student Learning Outcomes

A student majoring in Biology will

1. Discuss and analyze a scientific paper in terms of how the scientific method is applied in experimental design and data analysis.
2. Use oral communication skills effectively to persuade, or debate, a challenging or controversial scientific topic to non-science audience.

3. Demonstrate mastery of core knowledge in biology (from molecules to ecosystems).
4. Demonstrate mastery of specialized knowledge in Ecology and Biodiversity, Molecular Biology and Genetics, or Integrative Biology.