Ecology and Evolutionary Biology, B.S.

In the 21st century, biologists in fields ranging from medicine to global change biology increasingly incorporate ecological and evolutionary ideas in their research. The major in Ecology and Evolutionary Biology encourages students to understand and appreciate important linkages between biological disciplines. The major is very broad, including components of evolutionary biology, ecology, and physiology. Faculty interests are also broad and include molecular evolution, population genetics, the evolution of aging, conservation biology, restoration ecology, biogeography, plant and animal population and community ecology, the evolution of infectious disease, experimental evolution, evolutionary ecology, population and community ecology, conservation and restoration ecology, global change, microbial ecology, behavioral ecology, ecophysiology, and evolutionary physiology. Following graduation, students will be especially well prepared to enter graduate programs in either ecology or evolution for advanced study. The major also provides the foundation to pursue careers in governmental and non-governmental environmental organizations, in industry, and in professional schools. The Department considers undergraduate experience in research an integral component of a scientific education, and majors are required to participate in BIO SCI 199 or BIO SCI 197, in which they will be mentored by an individual faculty member within the Department.

All students must meet the University Requirements (http://catalogue.uci.edu/informationforadmittedstudents/requirementsforabachelorsdegree/).

All students must meet the School Requirements (http://catalogue.uci.edu/schoolofbiologicalsciences/#schoolrequirementstext).

Major Requirements

A. Required Major Courses:	
BIO SCI 2E	Topics and Careers in Ecology and Evolution
BIO SCI 4B	Introduction to Field Biology
BIO SCI E106	Processes in Ecology and Evolution
BIO SCI E107	Seminar in Ecology and Evolutionary Biology
ECO EVO 201	Seminar in Ecology and Evolutionary Biology
STATS 8	Introduction to Biological Statistics
B. Upper-Division Laboratories:	
BIO SCI E115L	Evolution Laboratory
BIO SCI E166L	Field Biology
and select one of the following:	
BIO SCI E106L	Habitats and Organisms
BIO SCI E112L	Physiology Laboratory
BIO SCI E131L	Image Analysis in Biological Research
BIO SCI E140L	Evolution and the Environment Laboratory
BIO SCI E160L	Biology of Birds Lab
BIO SCI E179L	Field Freshwater Ecology
BIO SCI E186L	Population and Community Ecology Lab
One laboratory can be satisfied with completion of Excellence in Research in the Biological Sciences.	
C. Upper-Division Biology Electives:	
Select three four-unit courses from the following:	
BIO SCI E118–E190. These electives fall into three areas (ecology, evolution, and physiology), but students may take any combination of three courses from BIO SCI E118 to BIO SCI E190 and are not required to distribute them among these three areas.	
D. Independent Study	
Miniumum one quarter of independent study, usually BIO SCI 199. BIO SCI 197 can be substituted for BIO SCI 199.	

Double majors within the School of Biological Sciences or with Public Health Sciences, Biomedical Engineering: Premedical, Nursing Science, or Pharmaceutical Sciences are not permitted.

Freshman		
Fall	**Winter**	**Spring**
BIO SCI 93	BIO SCI 94	BIO SCI E106[2]
CHEM 1A	CHEM 1B	CHEM 1C- 1LC
Lower-Division Writing[1]	Lower-Division Writing[1]	Lower-Division Writing[1]
BIO SCI 2A		

Sophomore		
Fall	**Winter**	**Spring**
BIO SCI 97	BIO SCI 98	BIO SCI 99
CHEM 51A	CHEM 51B- 51LB	CHEM 51C- 51LC
MATH 5A	MATH 5B	STATS 8
CHEM 1LD		
Junior		
Fall	**Winter**	**Spring**
BIO SCI E107	U-D Bio. Sci. elective	BIO SCI E115L
PHYSICS 3A	PHYSICS 3B- 3LB	PHYSICS 3C- 3LC
Bio. Sci. research	Bio. Sci. research	U-D Bio. Sci. elective
BIO SCI 100	General Education	Bio. Sci. research
Senior		
Fall	**Winter**	**Spring**
BIO SCI E166L	U-D Bio. Sci. elective	U-D Bio. Sci. elective
U-D Lab	Bio. Sci. research	General Education
Bio.Sci. research	General Education	Bio. Sci. research
Elective		

[1] Students have the option of taking HUMAN 1AS, HUMAN 1BS, HUMAN 1CS or WRITING 40, WRITING 50, WRITING 60 in order to fulfill the lower-division writing requirement.

[2] BIO SCI E106 is offered in all three quarters, is a prerequisite for many upper-division courses and may be taken at any time after completion of BIO SCI 94.

- Ecology and Evolutionary Biology, Graduate Program
- Master of Conservation and Restoration Science