ECOLOGY AND EVOLUTIONARY BIOLOGY MAJOR

The major in Ecology and Evolutionary Biology is an innovative program of study. Our diverse faculty offer engaging, student-centered courses with ample opportunities for hands-on learning in the lab and field in addition to research and study abroad programming in Ecuador, Australia, and Scandinavia, for example. Students are encouraged to join our labs, where they can develop a wide range of skills and expertise in areas including molecular and microbiology, physiology, animal behavior, and disease and field ecology. The EBIO major prepares students for careers in zoology, botany, conservation, science education, consulting, non-governmental organizations, as well as graduate and professional programs. Students interested in pursuing advanced study in public health, medical or veterinary school also benefit from the breadth and depth of the major, and the unique extent of faculty-student engagement.

The Ecology and Evolutionary Biology Department also offers a major in Environmental Biology and a minor in Marine Biology to undergraduate students.

Requirements

The major in ecology and evolutionary biology provides understanding of the structure and function of organisms and their evolution and ecology. Majors must complete six core courses, five elective courses, and the capstone requirement.

Course ID	Title	Credits
Core Courses		
CELL 1010	Intro to Cell & Molec Biology	3
EBIO 1010 & EBIO 1015	Diversity of Life and Diversity of Life Lab	4
EBIO 2020	Theory & Methods Eco & Evo Bio	3
EBIO 2070 & EBIO 2071	Molec & Evolutionary Genetics and Molec & Evol Genetics Rec [4]	4
or CELL 2050 & EBIO 2072	Genetics and Quantitative, Population & Evolutionary Genetics	
EBIO 3040	General Ecology	3
EBIO 3045	General Ecology Lab	1
EBIO 3080	Processes of Evolution	3
Math		
Two semesters of Mathematics [1]		6
Elective Credits		
Select five elective courses [2]		15-20
Capstone		
Select Capstone Courses [3]		
EBIO 5970	Capstone Research Seminars	2-3
or EBIO 5971	Capstone Research Seminars	
General Chemistry		
CHEM 1070	General Chemistry I	3
CHEM 1075	General Chemistry Lab I	1
CHEM 1080	General Chemistry II	3
CHEM 1085	General Chemistry Lab II	1
Organic Chemistry		
CHEM 2410	Organic Chemistry I	3
CHEM 2415	Organic Chemistry Lab I	1
CHEM 2420	Organic Chemistry II	3
CHEM 2425	Organic Chemistry Lab II	1
Total Credit Hours		**60-66**

[1] A minimum of 6 credits of mathematics is required for the Bachelor's degree. Any two Mathematics courses (MATH) numbered 1210 and above may be used to satisfy this requirement. However, the combination of MATH 1150 and MATH 1160 (Long Calculus) may only count as one course towards this requirement.

[2] Five elective courses(see department courses (https://catalog.tulane.edu/science-engineering/ecology-evolutionary-biology/#coursestext) listing) are selected according to the interests of the student in consultation with the major advisor. Two of the electives must be designated laboratory or field courses. In addition, a student may use a maximum of one course from an approved list of courses (see below) from other departments as an elective course. Courses representing internship studies, independent studies, and seminars may not count as elective courses.

[3] This capstone requirement may be satisfied by completion of EBIO 5970 Capstone Research Seminars (3 c.h.) or EBIO 5971 Capstone Research Seminars (2 c.h.).

[4] The option of CELL 2050+EBIO 2072 is available only to double majors and/or pre-health students whose outside program otherwise require CELL 2050.

Note(s):

Additional courses in biological statistics and physics are also highly recommended.

Extradepartmental Courses

Any one of these courses, which are not taught by the faculty of the Department of Ecology and Evolutionary Biology, is acceptable as one of the electives in the required programs for the EE Biology or the Environmental Biology major if not already required by that major.

Course ID	Title	Credits
ANTH 3140	Primate Ecology and Behavior	3
ANTH 6500	Human Evolution	3
ANTH 3720	Adaptation and Human Variability	3
ANTH 3760	Primate Evolution and Adaptation	3
CELL 3030	Molecular Biology	3
CELL 3035	Molecular Biology Lab	1
CELL 3750	Cell Biology	3
CELL 3755	Cell Biology Laboratory	1
CELL 4010	Cellular Biochemistry	3
CELL 4110	Human Histology	4
CELL 4130	Embryology	3
CELL 4160	Developmental Biology	3
CELL 4220	Microbiology	3
CHEM 2410	Organic Chemistry I	3
CHEM 2415	Organic Chemistry Lab I	1
CHEM 2420	Organic Chemistry II	3
CHEM 2425	Organic Chemistry Lab II	1
CHEM 2480	Chemistry of Energy	3
CHEM 2500	Environmental Chemistry	3
CHEM 3830	Intro To Biochemistry	3
CHEM 3835	Intro to Biochem Lab	2
SCEN 4110	Basic Medical Biochemistry	3