

# ENVIRONMENTAL BIOLOGY MAJOR

The major in Environmental Biology is a focused course of study intended for students who are interested in conservation biology, environmental preservation, human health, education, and public policy. 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 coastal, aquatic, tropical and disease ecology. The major will prepare students who are interested in seeking employment with environmental agencies of federal, state, and municipal governments or non-governmental organizations, and in private industry, including environmental economics and environmental consulting firms. The program also may appeal to individuals planning to enter the field of environmental law. Global Change Biology and Conservation Biology are required electives for the ENVB major.

The major in Environmental Biology is one of two majors offered by the Ecology and Evolutionary Biology Department to undergraduate students. The Department also offers a major in Ecology and Evolutionary Biology.

## Requirements

The major in environmental biology provides understanding of biological processes among populations, communities, and ecosystems. Majors must complete eight core courses, three elective courses, three chemistry courses (or alternatives as listed below), two mathematics courses and the capstone requirement.

Course ID	Title	Credits
<b>Core Courses</b>		
EBIO 1010 & EBIO 1015	Diversity of Life and Diversity of Life Lab	4
EBIO 1020 or CELL 1010	Mechanisms of Life Intro to Cell & Molec Biology	3
EBIO 2020	Theory and Methods in Ecology and Evolutionary Biology	3
EBIO 2040	Conservation Biology	3
EBIO 2050	Global Change Biology	3
EBIO 2070 & EBIO 2071 or CELL 2050 & EBIO 2072	Molecular and Evolutionary Genetics and Molecular and Evolutionary Genetics Recitation Genetics and Quantitative, Population & Evolutionary Genetics	4
EBIO 3040 & EBIO 3045	General Ecology and General Ecology Lab	4
EBIO 3080	Processes of Evolution	3
<b>Elective Courses</b>		
<b>Select three elective courses <sup>1</sup></b>		
<b>One 3-credit-hour EBIO Lecture Elective</b>		<b>3</b>
<b>Two 4-credit-hour EBIO Lab Electives</b>		<b>8</b>
<b>Chemistry Requirement</b>		
CHEM 1070 & CHEM 1075	General Chemistry I and General Chemistry Lab I	4
<b>General Chemistry II or 4-credit-hour EBIO Lab Electives, or alternate course from list below</b>		
CHEM 1080 & CHEM 1085 or CHEM 2500 or ECON 3330 or EVST 3310 or EVST 3950 or POLI 4620 or SOCI 2600	General Chemistry II and General Chemistry Lab II Environmental Chemistry Environmental & Natural Resource Approaches to Environ Studies Special Topics Environmental Thought Global Environmnt Politics Environmental Sociology	4
<b>Organic Chemistry I or 4-credit-hour EBIO Lab Electives or alternate course from list below</b>		
CHEM 2410 & CHEM 2415	Organic Chemistry I and Organic Chemistry Lab I	4

or EENS 2120  
 & EENS 2121  
 or EENS 4360  
 or RCSE 6802  
 or RCSE 6810

Climate and Extinction  
 and Climate and Extinction lab  
 Environmental Geochemistry  
 Introduction to Coastal Science and Engineering  
 River and Stream Restoration

**Environmental Biology Capstone** <sup>2</sup> EBIO 5970 (3 credit hours) carries the NTC Tier-2 Writing Attribute

EBIO 5970	Capstone Research Seminars	2-3
or EBIO 5971	Capstone Research Seminars	

**Complete two semesters of Mathematics** <sup>3</sup> **6**

**Total Credit Hours** **58-59**

<sup>1</sup> Three elective courses(see department courses (<https://catalog.tulane.edu/science-engineering/ecology-evolutionary-biology/#coursestext>) list) in the department of ecology and evolutionary biology must include two laboratory-field courses. Internship studies, independent studies and seminars will not fulfill the elective. EBIO 4990 Honors Thesis Edited Course (3 c.h.) and EBIO 5000 Honors Thesis Edited Course (4 c.h.) satisfy only one lecture elective in the major. Students who opt to write an Honors Thesis will take EBIO 4992 Honors Thesis Cohort (0 c.h.) in both semesters concurrently with the thesis courses.

<sup>2</sup> 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.).

<sup>3</sup> A minimum of 6 credits of mathematics is required for the Bachelor's of Science degree in the Tulane School of Science and Engineering. Any two Mathematics (MATH) courses numbered 1210 and above may be used to satisfy this requirement. However, the combination of MATH 1150 and MATH 1160 (Long Calculus) may count as one course towards this requirement. Courses in statistics and physics are highly recommended but are not required.

## Contact

For more information, contact the School of Science and Engineering (<https://sse.tulane.edu/eebio/about/contact/>).