

Biology

Ecology and biodiversity is an interdisciplinary major that integrates coursework in biology, ecology, and evolution with other environmental disciplines.

Requirements for the Major in Ecology and Biodiversity

The major¹ requires successful completion of the following:

Course Requirements ²

BIOL 133	Introductory Molecular Biology and Genetics	4
BIOL 210	Ecology (Lab)	4
BIOL 211	Biodiversity: Pattern and Process (Lab)	4
BIOL 315	Advanced Topics in Ecology and Biodiversity (capstone for seniors)	4
ENST 101	Introduction to Environmental Studies	4
ENST 217	Fundamentals of GIS	4
or STAT 204	or Elementary Statistics	
Select one course in ecological and evolutionary processes from the following:		4
BIOL 206	Plant Ecology (Lab)	
BIOL 213	Evolutionary Biology	
BIOL 221	Environmental Physiology of Plants (Lab)	
BIOL 237	Freshwater Biology (Lab)	
BIOL 241 and BIOL 251	Rainforests and Coral Reefs and Field Study in Belize	
BIOL 260	Cave Biology	
BIOL 313	Ecosystems and Global Change (Lab)	
BIOL 323	Environment and Development	
BIOL 350	Environmental Physiology and Biochemistry of Animals (Lab)	
ENST 240	Island Ecology (Lab) (counts as one course)	
Select one course in taxonomy from the following:		4
BIOL 200	Entomology	
BIOL 201	Ornithology (Lab)	
BIOL 202	Invertebrate Zoology (Lab)	
BIOL 215 and BIOL 216	Fungi and Algae and Bryophytes	
BIOL 255	Herpetology (Lab)	
BIOL 310	Plant Evolution and Systematics (Lab)	
Select one course in human dimensions from the following:		4
BIOL 209	Advanced Conservation Biology	
BIOL 222	Advanced Conservation Biology (Lab)	
BIOL 232	Human Health and the Environment (Lab)	
ENST 235	Freshwater Conservation	
Select one additional course from ecological and evolutionary processes, taxonomy, or human dimensions		4
Select one course on the environment from a non-science perspective: ³		4
ANTH 298	Ecological Anthropology	
ANTH 316	Archaeology of the Cumberland Plateau	
ANTH 350	Environmental Archaeology	
ANTH 357	Field School in Archaeology	
ECON 335	Environmental Economics	
ENST 217	Fundamentals of GIS (if not taken as a core course)	
ENST 336	Environmental Land-Use Policy	
ENGL 220	Poetry, Nature and Contemplation	
ENGL 396	American Environmental Literature	

FORS 270	Water Resource Policy and Law
PHIL 230	Environmental Ethics
POLS 382	International Environmental Policy
RELG 305	Religion and Animals
RELG 307	Religious Environmentalism
RELG 341	Religion and Ecology
RELG 353	Buddhism and the Environment
RELG 393	Rural Religion
RUSN 363	Environmentalism and Ecocide in Russian Literature and Culture

Total Semester Hours**44****Additional Requirements**

A comprehensive examination

Study abroad (recommended) ⁴

¹ The major field is defined as all Biology classes listed above, including: BIOL 130, ENST 101, ENST 140, ENST 217, ENST 240, ENST 317, ENST 400.

² Many graduate programs in ecology and biodiversity require one or more semesters of physical science (chemistry, geology, and/or physics). CHEM 120, GEOL 121, and STAT 204 are recommended electives.

³ Other non-science environmental courses require departmental approval.

⁴ Study abroad is recommended from programs such as: Organization for Tropical Studies (Costa Rica or South Africa), School for International Training (from a variety of countries), and Sea Semester. Study abroad courses count inside the major field if the majority of the work in the course concerns the scientific study of ecology and biodiversity; study abroad courses will count outside the major field if the majority of the work for the course concerns social science, humanities or other work outside the natural sciences.

Required for a B.S. (but not for a B.A.) in Ecology and Biodiversity**Course Requirements**

Select one course in statistics (STAT)	4
Select three additional courses in mathematics, statistics, or science outside biology, including at least two lab science courses	12

Total Semester Hours**16**