



Odum School of Ecology
UNIVERSITY OF GEORGIA

TRANSFER STUDENT HANDBOOK

OVERVIEW: MAJORING IN ECOLOGY

Ecology, the study of organisms and their environment, is an interdisciplinary science. Ecologists work at the interface of basic science fields such as biology, geology, chemistry, and mathematics, and may draw more broadly on subjects such as economics, public policy, environmental law, anthropology, and geography. There is a growing need to understand how organisms and the environment interact and to examine the influence of humans on the earth and its processes and biodiversity.

There are currently 190 majors in Ecology. Class sizes in the major are relatively small and students are encouraged to get to know their professors and participate in research projects. Students may elect to expand their experience through field courses, study abroad programs, and internships with the School of Ecology or other sponsors. These activities provide valuable experiences for students and fulfill the university's experiential learning requirement.

Many students completing an ecology degree will elect to enter graduate programs in Ecology or allied fields. Employment opportunities exist with consultant or environmental businesses that provide environmental services to local communities or industries as well as state and federal agencies or non-profit organizations. We encourage students to choose elective courses that enhance the academic breadth in their curriculum and build the skill set appropriate for their career goals. Excellent writing and speaking skills are critical in nearly all ecological fields and for students interested in environmental policy, experience in conflict resolution is valuable.

Two degree options exist for an undergraduate degree in Ecology. The Bachelor of Science degree has a strong basic science emphasis and provides training in all levels of ecological study from organismal to population and community and ecosystem ecology. This program prepares students for graduate study in Ecology or allied fields or careers in ecological research, environmental consulting or work with governmental agencies in natural resource management or protection. The Bachelor of Arts degree in Ecology provides a strong foundation in Ecology with an emphasis on the application of ecology to issues of societal importance such as conservation and climate change. Students pursuing this degree track will likely seek careers in environmental policy, conservation or similar fields. This is also an appropriate degree for students interested in environmental law or journalism. Students in either degree program will

meet with an advisor to discuss career plans and choose major electives to tailor their course of study to focus on areas of emphasis such as health, environmental policy, conservation, marine ecology, or ecology education.

Career Choices

Some of the following employers may require additional training at the master's level.

Private & Nonprofit Organizations

Agricultural Products Manufacturers
Engineering Firms
Pharmaceutical Firms
Colleges/Universities
Environmental Firms/Groups
Public/Private Schools
Biotechnology Firms
Fermentation Companies
Research Centers
Botanical Gardens
Forest Management Agencies
Watershed Associations
Chemical Manufacturers
Laboratories
Weed Control Companies
Conservation Organizations
Consulting Groups
Nature Conservancies
World Wildlife Fund
Crop/Soil Management Firms
Nature Science Centers

Government Agencies

Agricultural Research Stations
Dept. of Agriculture
Peace Corps
Bureau of Land Management
Dept. of Environmental Protection
Shade Tree Commission
Bureau of Reclamation
Dept. of Interior
Soil Conservation Service
Consumer Affairs Department
Division of Fish, Game & Wildlife
Teach for America
Conservation Dept.

NASA
U.S. Forest Service
Cooperative Extension Services
National Institutes of Health
County Greenway Organization
National Science Foundation

Required Foundational Coursework for the B.S. and A.B. Degrees in Ecology

- B.S. Ecology

- MATH 1113
- STAT 2000 or BIOS 2010
- PHYS 1111 and PHYS 1111L
- BIOL 1107 and BIOL 1107L
- BIOL 1108 and BIOL 1108L
- CHEM 1211 and CHEM 1211L
- CHEM 1212 and CHEM 1212L
- CHEM 2211 and CHEM 2211L
- CHEM 2212 and CHEM 2212L OR BCMB 3100 OR MATH 2260

- A.B. Ecology

- MATH 1113
- BIOL 1107 and BIOL 1107L
- BIOL 1108 and BIOL 1108L
- CHEM 1211 and CHEM 1211L
- STAT 2000 or BIOS 2010

Comparison of the B.S. and A.B. Degree Programs in Ecology

The following table shows the key required courses in the B.S. and the A.B. degrees.

Requirement	BS Degree	AB Degree

Core Area I	ENGL 1101 – English Composition I	ENGL 1101 – English Composition I
	ENGL 1102 – English Composition II	ENGL 1102 – English Composition II
	MATH 1113 – Pre-calculus	MATH 1113 – Pre-calculus
Core Area II	CHEM 1211, CHEM 1211L – Freshman Chemistry I and Lab	CHEM 1211, CHEM 1211L – Freshman Chemistry I and Lab
	BIOL 1107, BIOL 1107L – Principles of Biology I and Lab	BIOL 1107, BIOL 1107L – Principles of Biology I and Lab
Core Area III	MATH 2250 – Calculus I for Science and Engineering	Preferred courses: GEOG 2011-2011L Introduction to Geographic Information Science or CSCI 1210- Computer Modeling and Science
Core Area IV	World Languages and Culture (Foreign Language), 9 hours	World Languages and Culture (Foreign Language), 9 hours
	Humanities and the Arts, 3 hours	Humanities and the Arts, 3 hours
Core Area V	Social Sciences, 9 hours	Social Sciences, 9 hours
Core Area VI	BIOL 1108, BIOL 1108L– Principles of Biology II and Lab	BIOL 1108, BIOL 1108L– Principles of Biology II and Lab
	CHEM 1212, CHEM1212L – Freshman Chemistry II and Lab	STAT 2000 – Introductory Statistics or BIOS 2010- Biostatistics
	CHEM 2211, CHEM 2211L – Modern Organic Chemistry I and Lab	ECOL 2200 Sustainability of Water or ECOL 2100 – Global Climate Change: Past, Present, and Future
	PHYS 1111-1111L – Introductory Physics-Mechanics, Waves, and Thermodynamics	AAEC 2580 – Applied Microeconomics Principles <u>or</u> ECON 2106 – Principles of Microeconomics
	BCMB 3100 – Introductory Biochemistry and Molecular Biology <u>or</u> CHEM 2211/2211L – Modern Organic Chemistry II <u>or</u> MATH 2260 –Calculus II for Science and Engineering	COMM 1100 – Introduction to Public Speaking
		ANTH 1102 – Introduction to Anthropology <u>or</u> GEOG 1103 – Cultural Geography of the United States
Major Courses		
	STAT 2000 – Introductory Statistics	ECOL 3440- Science Communication for Ecologists
	ECOL 3400 – Professional Development for Careers in Ecology	ECOL 3400 – Professional Development for Careers in Ecology
	ECOL 3500-3500L – Ecology	ECOL 3500-3500L – Ecology
		ECOL 3530 – Conservation Biology
	ECOL 4950 – Senior Seminar	ECOL 4950 – Senior Seminar
	ECOL 4000 Population and Community Ecology <u>or</u> ECOL 4150-4150L – Population Biology of Infectious Diseases	ECOL 3300 Applied Ecology Field Program
	ECOL 4010 – Ecosystem Ecology <u>or</u> ECOL 4310-ECOL 4310L – Freshwater Ecosystems	ECOL 3770S Urban Ecology <u>or</u> ECOL 4900S- Environmental Practicum
	ECOL 4240-4240L – Physiological Ecology <u>or</u> ECOL 4540 – Behavioral Ecology	
	ECOL 4500 – Evolutionary Ecology <u>or</u> GENE 3000 – Evolutionary Biology <u>or</u> GENE 3200 – Genetics	

Major Electives		
	Natural History Course	Natural History Course
	Methods/Skills Course	Methods/Skills Course
	Additional Major Electives (13-18 hours)	Additional Major electives (9-12 hours)
General Electives	(9-18 hours)	(20-23 hours)
*Odum School Requirements		
	Foreign Language; Proficiency through the third semester	Foreign Language; Proficiency through the third semester
	Fine Arts/ Philosophy/ Religion/ Literature requirement (2 courses)	Fine Arts/ Philosophy/ Religion/ Literature requirement (2 courses)

*Odum School College-wide Degree Requirements

In addition to completing the University of Georgia Core Curriculum, all recipients of the B.S. and A.B. degrees in Ecology from the Odum School of Ecology are expected to satisfy the following requirements. Courses used to fulfill the Core Curriculum may simultaneously satisfy these requirements where applicable. All courses listed as part of college-wide requirements must be taken for 30 or more hours.

- Foreign Language (through the third semester)
- Fine Arts/Philosophy/Religion/Literature (2 courses)

MINOR IN ECOLOGY

Students who pursue a minor in Ecology will become familiar with the application of ecology as an environmental management tool.

- Students are required to complete at least 15 hours of coursework for the minor, and all prerequisites must be taken prior to enrolling in the required courses.
- All courses used to satisfy the minor must be passed with a grade of "C"(2.0) or better.

Required Courses (7-8 hours):

ECOL 3500-3500L or ECOL 3505H-3505L

Choose one course from the following list:

ECOL 3530

ECOL 4000/6000

ECOL 4010/6010

ECOL(BIOL) 4150/6150-4150L/6150L

ECOL 4240/4240L

ECOL(FISH)(WASR) 4310/6310-4310L/6310L
ECOL 4500/6500
ECOL 4540/6540
ECOL 4775/6775-4775L/6775L

Electives (7-8 hours):

Choose 7-8 hours of additional upper-division (3000-level or above) ECOL courses.

TRANSFER APPLICATION (UGA)

Any student wishing to declare the A.B. or B.S. Ecology as their major must first apply to UGA through Undergraduate Admissions. Be sure to indicate the Odum School of Ecology as the school/college in which you plan to enroll.

TRANSFER EQUIVALENCIES

Students taking coursework at another institution should view the UGA Transfer Equivalency website to verify transfer credit.

ADDITIONAL INFORMATION

Please visit our website at: ecology.uga.edu for more information about the Odum School and our undergraduate program.

CONTACT INFORMATION

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