NATURAL RESOURCES (BS)

This major, offered by the Department of Natural Resources and the Environment, prepares students for careers related to the management of natural resources. Students develop skills in applying modern technology, concepts and principles dealing with sustainable development, environmental protection and resource conservation.

Competency Requirements

Students successfully completing the courses listed below will have met their Common Curriculum information literacy requirements for this major. Students passing NRE 4000W Natural Resources Planning and Management will satisfy the writing competency requirement within the major.

All Natural Resources majors must pass the following core requirements:

Course	Title	Credits
NRE 1000E	Environmental Science	3
NRE 2000	Introduction to Geomatics	4
NRE 2010	Natural Resources Measurements	3
NRE 3000	Human Dimensions of Natural Resources	3
NRE 4000W	Natural Resources Planning and Management	3
NRE 4094	Seminar	1
BIOL 1107	Principles of Biology I	4
or BIOL 1108	Principles of Biology II	
or BIOL 1110	Introduction to Botany	
CHEM 1122	Chemical Principles and Applications	4
or CHEM 1124Q	Fundamentals of General Chemistry I	
or CHEM 1127Q	General Chemistry I	
MATH 1060Q	Precalculus	3
or MATH 1131Q	Calculus I	
PHYS 1201Q	General Physics I	4
or PHYS 1401Q	General Physics with Calculus I	
PLSC 2120 & PLSC 2125	Environmental Soil Science and Environmental Soils Lab	4
or ERTH 1050	Earth's Dynamic Environment	
STAT 1100Q	Elementary Concepts of Statistics	4
Total Credits		**40**

At least one course in the 36-credit group must come from a department other than NRE.

Concentrations

In addition to core requirements, all students must complete one or more of the following concentrations:

- Environmental Sustainability and Conservation (including the option for a pre-approved Education Abroad experience)
- Fisheries and Wildlife Conservation
- Forest Resources
- Water Resources and Climate

(For detailed information, please refer to nre.uconn.edu (http://nre.uconn.edu).)

Environmental Sustainability and Conservation

Course	Title	Credits
Required Courses		
ARE 1150	Principles of Applied and Resource Economics	3
or ECON 1201	Principles of Microeconomics	
NRE 1235E	Environmental Conservation	3
NRE 2600E	Global Sustainable Natural Resources	3
NRE 3245E	Environmental Law	3
or ARE 2434E	Environmental and Resource Policy	
Groups		
One course from each of the following four groups (the same course cannot be used to fulfill more than one group) or Education Abroad (12 credits or equivalent completed abroad of courses pre-approved by NRE):		
Sustainability Concepts		
Select one of the following:		3
ENVE 1000E	Environmental Sustainability	
NRE 3265	Sustainable Urban Ecosystems	
PLSC 2100E	Environmental Sustainability of Food Production in Developed Countries	
SOCI 2701E	Sustainable Societies	
SOCI 2707/2707W	Energy, Environment, and Society	
Economics and Social Science		
Select one of the following:		3
ARE 2525	Sustainability Policy and Management	
ARE 4438E	Valuing the Environment	
ARE 4444	Economics of Energy, Climate, and the Environment	
ECON 2467E	Economics of the Oceans	
ECON 3466E	Environmental Economics	
GEOG 3320W	Environmental Evaluation and Assessment	
GEOG 3340	Environmental Planning and Management	
GEOG 3410E	Human Modifications of Natural Environments	
PHIL 3216E	Environmental Ethics	
POLS 3412	Global Environmental Politics	
POLS 3847	The Policy-making Process	
SOCI 2701E	Sustainable Societies	
SOCI 2707	Energy, Environment, and Society	
or SOCI 2707W	Energy, Environment, and Society	
Natural Resources/Ecologic Science		
Select one of the following:		3-4
EEB 2244E/2244WE	General Ecology	
EEB 3230/ MARN 3014	Marine Biology	
MARN 3000E	The Oceans and Global Climate	
NRE 2146	Climatology	
NRE 2455	Forest Ecology	
NRE 3105	Wetlands Biology and Conservation	
NRE 3125	Watershed Hydrology	
NRE 3145	Meteorology	

NRE 4180	Climate Change Adaptation Science	
NRE 4205	Stream Ecology	
NRE 4370	Population Dynamics	
PLSC 2500E	Principles and Concepts of Agroecology	
Resource Conservation and Management		
Select one of the following:		3-4
NRE 2550	Nature-based Outdoor Recreation Resource Management	
NRE 3305	African Field Ecology and Renewable Resources Management	
NRE 3335	Wildlife Management	
NRE 4170	Climate-Human-Ecosystem Interactions	
NRE 4255	Water Quality Management	
NRE 4335	Fisheries Management	
NRE 4475	Forest Management	
NRE 4665	Natural Resources Modeling	
Total Credits		**24-26**

Fisheries and Wildlife Conservation

Course	Title	Credits
Core Courses		
EEB 2214	Biology of the Vertebrates	3
EEB 2244E/2244WE	General Ecology	4
NRE 2345	Introduction to Fisheries and Wildlife	3
NRE 3335	Wildlife Management	3
or NRE 4335	Fisheries Management	
NRE 3345/3345W	Wildlife Management Techniques	4
or NRE 3385W	Fisheries Techniques	
NRE 4370	Population Dynamics	3
Groups		
One course from each of the following four groups (the same course cannot be used to fulfill more than one group):		
Taxonomy or Organismal-Level Group		
Select one of the following:		
ANSC 1111	Principles of Animal Nutrition and Feeding	
ANSC 3121	Principles of Animal Genetics	
EEB 3254	Mammalogy	
EEB 3265	Herpetology	
EEB 4200	Biology of Fishes	
EEB 4215	Physiological Ecology of Animals	
EEB 4250	General Entomology	
EEB 4260	Ornithology	
or EEB 4261	Ornithology Laboratory	
NRE 3693	Foreign Studies in Natural Resources (approved by advisor)	
NRE 4340	Ecotoxicology	
PSYC/EEB 3201	Animal Behavior	
PATH 2100	Anatomy and Physiology of Animals	
PATH 4300	Principles of Pathobiology	
Habitat or Ecosystem-Level Group		
Select one of the following:		3-4
NRE 2455	Forest Ecology	
NRE 3105	Wetlands Biology and Conservation	
NRE 3693	Foreign Studies in Natural Resources (approved by advisor)	
NRE 4205	Stream Ecology	
Total Credits		**23-24**

Forest Resources

Course	Title	Credits
NRE 2415	Dendrology	3
NRE 2455	Forest Ecology	3
NRE 3425	Fundamentals of Arboriculture	3
NRE 3500	Exurban Silviculture	4
NRE 4425	Urban and Community Forestry	3
NRE 4475	Forest Management	4
Select one of the following:		3
NRE 2345	Introduction to Fisheries and Wildlife	
NRE 2550	Nature-based Outdoor Recreation Resource Management	
NRE 3265	Sustainable Urban Ecosystems	
NRE 3335	Wildlife Management	
NRE 3535	Remote Sensing of the Environment	
NRE 3690	Field Study Internship	
NRE 3693	Foreign Studies in Natural Resources	
NRE 4335	Fisheries Management	
Select one of the following:		3
NRE 3105	Wetlands Biology and Conservation	
NRE 3125	Watershed Hydrology	
NRE 3693	Foreign Studies in Natural Resources	
NRE 4180	Climate Change Adaptation Science	
NRE 4205	Stream Ecology	
Total Credits		**26**

Water Resources and Climate

Course	Title	Credits
Core Courses		
NRE 2146	Climatology	3
or NRE 3145	Meteorology	
NRE 2215E	Introduction to Water Resources	3
NRE 3125	Watershed Hydrology	3
Groups		
Five additional courses from among the following groups, including at least one from the Hydrologic Science group and at least one from the Biological/Ecological Science group: [1]		15
Hydrologic Science		
ERTH 2020	Earth Surface Processes	
ENVE 3120	Fluid Mechanics	
MARN 3000E	The Oceans and Global Climate	
NRE 4135	Introduction to Ground Water Hydrology	
NRE 4255	Water Quality Management	
NRE 5115	Field Methods in Hydrogeology	
Biological/Ecological Science		
NRE 3105	Wetlands Biology and Conservation	
NRE 4205	Stream Ecology	
NRE 4340	Ecotoxicology	

Atmospheric Science		
	GEOG 3400	Climate and Weather
	NRE 2146	Climatology
	NRE 3115	Air Pollution
	NRE 3145	Meteorology
	NRE 4170	Climate-Human-Ecosystem Interactions
	NRE 4180	Climate Change Adaptation Science
Policy		
	ARE 2434E	Environmental and Resource Policy
	NRE 3245E	Environmental Law
Related Skills		
	AH 3275	HAZWOPER
	NRE 3535	Remote Sensing of the Environment
	NRE 4544	Land Surveying for Environmental Management and Planning
Total Credits		**24**

[1] Whichever of NRE 2146 Climatology or NRE 3145 Meteorology is used to fulfill the above requirement cannot be used to also fulfill this requirement.

A minor in Wildlife Conservation is described in the “Minors” section.