

# 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 General Education information literacy exit 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	
SPSS 2120 & SPSS 2125	Environmental Soil Science and Soils Lab	4
or EARTH 1050	Earth's Dynamic Environment	
PHYS 1201Q	General Physics I	4
or PHYS 1401Q	General Physics with Calculus I	
STAT 1100Q	Elementary Concepts of Statistics	4
<b>Total Credits</b>		<b>40</b>

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) (<http://nre.uconn.edu>).

## Environmental Sustainability and Conservation

Course	Title	Credits
<b>Required Courses</b>		
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	
<b>Groups</b>		
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):		
<i>Sustainability Concepts</i>		
Select one of the following:		3
ANTH 3339		
ENVE 1000E	Environmental Sustainability	
NRE 3265	Sustainable Urban Ecosystems	
NRE 3675		
SOCI 2701E	Sustainable Societies	
SOCI 2707	Energy, Environment, and Society	
or SOCI 2707W	Energy, Environment, and Society	
SPSS 2100E	Environmental Sustainability of Food Production in Developed Countries	
<i>Economics and Social Science</i>		
Select one of the following:		3
ANTH 3339		
ARE 2235		
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	
or PHIL 3216WE		
POLS 3239		
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	
<i>Natural Resources/Ecologic Science</i>		
Select one of the following:		3-4
EEB 2244E	General Ecology	
or EEB 2244WE	General Ecology	
EEB 3247		

EEB 3230/ MARN 3014	Marine Biology
MARN 3000E	The Oceans and Global Climate
NRE 2455	Forest Ecology
NRE 3105	Wetlands Biology and Conservation
NRE 3125	Watershed Hydrology
NRE 3145	Meteorology
NRE 3146	Climatology
NRE 4180	Climate Change Adaptation Science
NRE 4205	Stream Ecology
NRE 4370	Population Dynamics
SPSS 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 4165	
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
<b>Core Courses</b>		
EEB 2214	Biology of the Vertebrates	3
EEB 2244E	General Ecology	4
or EEB 2244WE	General Ecology	
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	
or NRE 4575		
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
<i>Habitat or Ecosystem-Level Group</i>	
Select one of the following: 3-4	
EEB 3247	
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 3125	Watershed Hydrology	3
NRE 3500	Exurban Silviculture	4
NRE 4475	Forest Management	4

Select one of the following: 3-4

NRE 3535	Remote Sensing of the Environment
NRE 4544	Land Surveying for Environmental Management and Planning
NRE 4575	

Select one of the following: 3

NRE 3425	Fundamentals of Arboriculture
NRE 4425	Urban and Community Forestry

Select two of the following:

NRE 2345	Introduction to Fisheries and Wildlife
NRE 2550	Nature-based Outdoor Recreation Resource Management
NRE 3105	Wetlands Biology and Conservation
NRE 3245E	Environmental Law
NRE 3265	Sustainable Urban Ecosystems
NRE 3690	Field Study Internship
NRE 3693	Foreign Studies in Natural Resources
NRE 4180	Climate Change Adaptation Science

**Total Credits** 23-24**Water Resources and Climate**

Course	Title	Credits
<b>Core Courses</b>		
NRE 2215E	Introduction to Water Resources	3
NRE 3125	Watershed Hydrology	3
NRE 3145	Meteorology	3
or NRE 3146	Climatology	

**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.<sup>1</sup> 15

#### *Hydrologic Science*

ENVE 3120	Fluid Mechanics
ERTH 3020	Earth Surface Processes
GEOG 3310	
MARN 3000E	The Oceans and Global Climate
NRE 4135	Introduction to Ground Water Hydrology
NRE 4165	
NRE 4255	Water Quality Management
NRE 5115	Field Methods in Hydrogeology

#### *Biological/Ecological Science*

EEB 3204	
EEB 3247	
NRE 3105	Wetlands Biology and Conservation
NRE 4205	Stream Ecology
NRE 4340	Ecotoxicology

#### *Atmospheric Science*

GEOG 3400	Climate and Weather
NRE 3115	Air Pollution
NRE 3145	Meteorology
NRE 3146	Climatology
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
NRE 4575	

**Total Credits** 24

<sup>1</sup> Whichever of NRE 3145 Meteorology or NRE 3146 Climatology 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.

## University General Education Requirements

Every student must meet a set of core requirements to earn a baccalaureate degree, in addition to those required by the student's major course of study and other requirements set by the student's school or college. For more information about these requirements, please see General Education Requirements (<https://catalog.uconn.edu/undergraduate/gen-ed-requirements/>).

## College of Agriculture, Health and Natural Resources Degree Requirements

Students must meet a set of requirements established by the college in addition to the University's General Education requirements. For more information, see the College of Agriculture, Health and Natural Resources (<https://catalog.uconn.edu/undergraduate/agriculture-health-natural-resources/#requirementstext>) section of this catalog.