



# Natural Resources Management

The ENST concentration in Natural Resources Management is designed to teach students concepts of the environmentally sound use and management of natural resources. Ecosystems and human societies are linked in complex cycles and relationships between vegetation and wildlife, forests and cities, conservation and development. By learning to participate effectively within these cycles, we will help sustain a harmonious relationship between the environment and human activities.

## Science and Math Fundamentals Required (45-46 credits):

- ▲ **ENST 200** Fundamentals of Soil Science (4)
- ENST 233** Introduction to Environmental Health (3)
- ENST 360** Ecosystem Ecology (4)
- ENST 389** Internship (3) ◆
- ENST 471** Capstone I (2)
- ENST 472** Capstone II (3)
- ▲ **BSCI 170/171** Principles of Biology I (4)
- ▲ **BSCI 160/161** Principles of Biology II (4)
- ▲ **CHEM 131&132** Fundamentals of General Chemistry & Lab (4)
- ▲ **CHEM 231&232** Organic Chemistry I & Lab (4)
- ▲ **MATH 140** Calculus I (4) -or- **MATH 120** Elementary Calculus I (3)
- ▲ **PHYS 121** Fundamentals of Physics I (4)
- ▲ **BIOM 301** Introduction to Biometrics (3)

## Natural Resources Breadth (15-16 credits)

- GEOG 373** Geographic Information Systems (3)
- ENST 214** Introduction to Fish and Wildlife (3)
- ENST 406** Applied Forestry Practices (3)
- ENST 450** Wetland Ecology (3) -or-
- ENST 453** Watershed Science: Water Balance, Open Channel Flow, and Near Surface Hydrology (3)
- AREC 240** Introduction to Economics and the Environment (4) -or-
- SOCY 405** Scarcity and Modern Society (3) -or-
- AREC 241** Environment, Economics, and Policy Studies (3)

## Ecosystem Services (3 credits)

- ENST 410** Ecosystem Services: An Integrated Analysis (3) -or-

## Human Dimensions (5 credits)

- ENST 404** Natural Resources and Environmental Ethics (3)
- ENST 487** Environmental Conflicts and Decision Making (2)

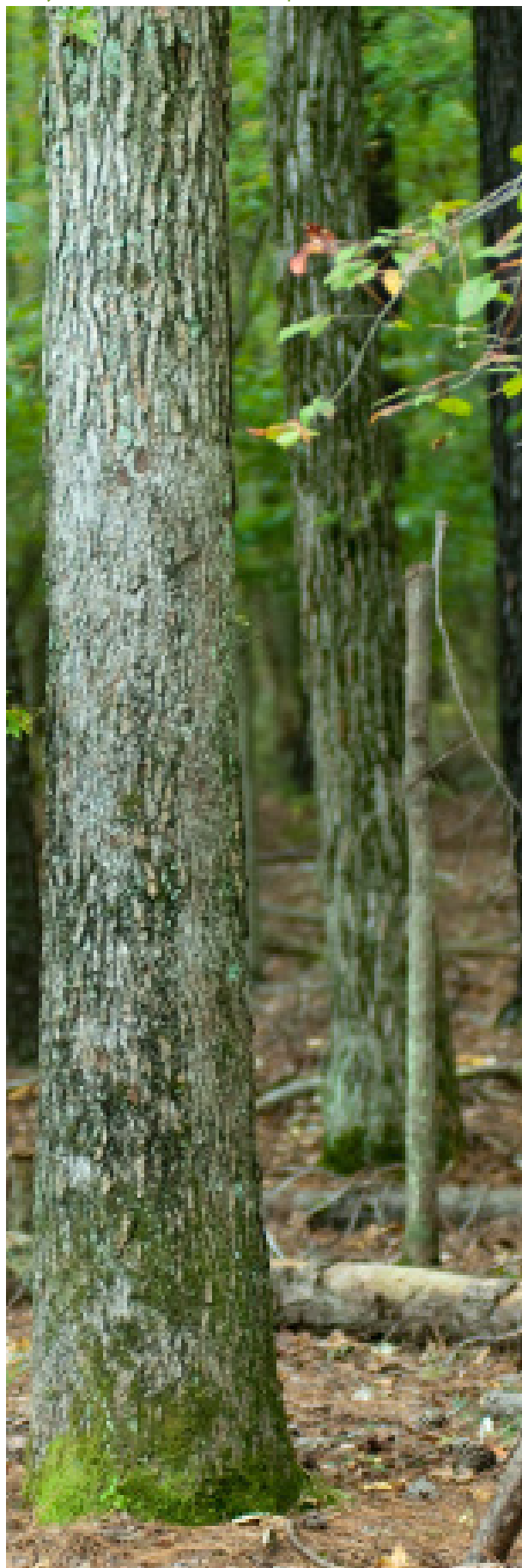
## Resource Management and Science Electives (12 credits)

Example courses listed on reverse side. Courses applied to elective requirements may not be applied to other curriculum requirements.

▲ Benchmark to be completed by 30 credits  
 ▲ Benchmark to be completed by 60 credits  
 ▲ Benchmark to be completed by 90 credits  
 ◆ Requires prior approval

Highlighted Courses are ENST CORE  
 Students must maintain a 2.0 grade point average in major required courses

Students will take approximately 6 credits each of Resource Management and Resource Science electives to tailor their program to their specific interests (total = 12 credits). Resource Management electives cannot be double-counted as Resource Science Electives, and vice-versa. This is not an exhaustive list of electives; other science and management courses can be substituted with advisor approval. Required electives may not be applied in more than one category, e.g. Elective selections will not also satisfy Natural Resources Breadth requirements.



#### Resource Management Electives (6 credits):

- ANSC 453** Animal Welfare and Bioethics (3)
- ANTH 450** Theory and Practice of Environmental Anthropology (3)
- AREC 365** World Hunger, Population, and Food Supplies (3)
- AREC 445** Ag. Development, Population Growth and the Environment (3)
- BSCI 207** Principles of Biology III – Organismal Biology (3)
- BSCI 334** Mammalogy &
- BSCI 335** Mammalogy Lab (4)
- BSCI 363** The Biology of Conservation and Extinction (3)
- BSCI 366** Biodiversity Issues in Conservation Management (3)
- ECON 315** Economic Development of Underdeveloped Areas (3)
- ENST 314** Fisheries Sustainability and Management (3)
- ENST 405** Energy and Environment (3)
- ENST 415** Alternative Energy (3)
- ENST 423** Soil-Water Pollution (3)
- ENST 440** Crops, Soils and Civilization (3)
- ENST 441** Sustainable Agriculture (3)
- ENST 460** Principles of Wildlife Management (3)
- ENST 461** Urban Wildlife Management (3)
- ENST 462** Field Techniques in Wildlife Management (3)
- ENST 463** Wildlife Habitat and Population Modeling (3)
- ENST 479** Tropical Ecology and Resource Management (1-6)
- GEOG 372** Remote Sensing (3)
- GEOG 472** Remote Sensing: Digital Processing and Analysis (3)
- GEOG 473** Geographic Information Systems and Spatial Analysis (3)
- GEOL 437** Global Climate Change: Past and Present (3)
- GEOL 453** Restoration Ecology (3)
- LARC 450** Environmental Resources (3)
- LARC 451\*\*\*** Sustainable Communities (1-6)
- PLSC 171** Introduction to Urban Forestry (3)
- PLSC 201** Plant Structure and Function (4)
- PLSC 253** Woody Plants for Mid-Atlantic Landscapes I (3)
- PLSC 471** Forest Ecology (3)

#### Resource Science Electives (6 credits):

- ANSC 252** Introduction to the Diseases of Wildlife (3)
- ANSC 452** Avian Physiology (3)
- BSCI 360** Principles of Animal Behavior (3)
- BSCI 362** Ecology of Marsh and Dune Vegetation (2)
- BSCI 375** Biological Oceanography (3)
- BSCI 440** Mammalian Physiology (4)
- BSCI 441** Mammalian Physiology Laboratory (2)
- BSCI 442** Soil Biochemistry and Microbial Ecology(3)
- BSCI 462** Population Ecology (3)
- BSCI 463** Laboratory and Field Ecology (2)
- BSCI 464** Microbial Ecology (3)
- BSCI 467** Freshwater Biology (4)
- BSCI 473** Marine Ecology (3)
- BSCI 481** Insect Diversity and Classification (4)
- BSCI 493** Medicinal and Poisonous Plants (3)
- ENST 301-3** Field Soil Morphology (1)each
- ENST 373** Natural History of the Chesapeake Bay (3)
- ENST 414** Soil Morphology, Genesis and Classification (4)
- ENST 421** Soil Chemistry (4)
- ENST 422** Soil Biochemistry and Microbial Ecology (3)
- ENST 430** Wetland Soils (3)
- ENST 450** Wetland Ecology (3)
- GEOG 345** Introduction to Climatology (3)
- GEOG 440** Advanced Geomorphology (3)
- GEOL 340** Geomorphology (4)
- GEOL 444** Low Temperature Geochemistry (4)
- GEOL 451** Groundwater (3)
- GEOL 452** Watershed and Wetland Hydrology (3)
- PLSC 400** Environmental Plant Physiology (3)
- PLSC 453** Weed Science (3)

\*\*\* Must take at least one additional course, 6 credits of one course does not fulfill requirement.