NATURAL RESOURCES AND THE ENVIRONMENT (NRE)

NRE 1000E. Environmental Science. (3 Credits)
An introduction to basic concepts and areas of environmental concern and how these problems can be effectively addressed. Topics include human population; ecological principles; conservation of biological resources; biodiversity; croplands, rangelands, forestlands; soil and water conservation; pollution and water management; and wildlife and fisheries conservation. CA 3.
Skill Codes: COMP. Environmental Literacy
Content Areas: CA3: Science & Technology
Topics of Inquiry: TOI4: Environmental Literacy, TOI6: Science & Empirical Inq
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%201000E)

NRE 1235E. Environmental Conservation. (3 Credits)
Overview of the history of natural resource use and environmental conservation policy development from prehistoric to present times. Examination of the emergence of the 20th century conservation movement in North America and the transition to the environmental movement is used to highlight recurring environmental issue themes such as: private ownership vs. public trust doctrine; commercial trade in natural resources; development vs. protection; sustainability; and the role of society and governments in regulation. Through selected readings and case studies, students are challenged to begin development of their personal ethics regarding the development, conservation and protection of the environment. CA 1.
Skill Codes: COMP. Environmental Literacy
Content Areas: CA1: Arts & Humanities
Topics of Inquiry: TOI3: Div, Equity, Soc Just, TOI4: Environmental Literacy
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%201235E)

NRE 1250. Community Engagement for Environmental Action. (1 Credit)
Introduction to equitable and inclusive community engagement practices that support community-based environmental efforts. Relevant topics covered are principles of authentic community engagement, environmental education practices that promote collective environmental action, culturally relevant environmental education, trauma-informed care mentorship, and basic knowledge of local environmental issues. Student teams will plan, develop, and deliver a culturally relevant environmental education activity, with the potential of integrating it into an existing community-based extension program.
Not open for credit to students who have passed NRE 4695 when offered as Leadership in Community-Based Conservation.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%201250)

NRE 2000. Introduction to Geomatics. (4 Credits)
Principles and applications of geographic information systems (GIS), global positioning system (GPS), and remote sensing. Students will be provided with the scientific knowledge and technical skills needed to collect and use spatial data effectively in a GIS.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%202000)

NRE 2010. Natural Resources Measurements. (3 Credits)
Principles and instrumentation used in the measurement of environmental conditions and processes. Field trips required.
Open only to Natural Resources and Environmental Sciences majors, or by instructor consent.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%202010)

NRE 2215E. Introduction to Water Resources. (3 Credits)
Introduction to surface and ground water resource assessment, development and management. Integration of scientific, legal, environmental and human factors that enter into developing and maintaining sustainable water resources. Examines current and future plight of water shortages and water quality issues here and abroad. Three class periods and two field trips (two virtual field trips if taken online). Open to sophomores or higher. Recommended preparation: NRE 1000 and ERTH 1050.
Skill Codes: COMP. Environmental Literacy
Topics of Inquiry: TOI4: Environmental Literacy
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%202215E)

NRE 2345. Introduction to Fisheries and Wildlife. (3 Credits)
An introduction to the basic principles used in the management of wildlife and fish populations, their habitats and ecosystems, and their human stewards. Students will be introduced to the fundamental concepts, topics, and skill sets that are commonly needed in the wildlife and fisheries profession.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%202345)

NRE 2415. Dendrology. (3 Credits)
The taxonomy, silvics, and distribution of trees and shrubs of the United States with emphasis upon Northeastern species. Field trips will be required.
Recommended preparation: BIOL 1108 or 1110. May not be taken out of sequence after passing NRE 3500 or 4475.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%202415)

NRE 2455. Forest Ecology. (3 Credits)
Forest structure and functional processes and their relation to physical environment (light, temperature, water, soil); the influence of time (succession, disturbance, stand dynamics) and space (landscape ecology, ecosystem management). Laboratory will be in the field or computer lab.
Recommended preparation: NRE 2415, which may be taken concurrently.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%202455)

NRE 2550. Nature-based Outdoor Recreation Resource Management. (3 Credits)
Overview of major issues, concepts, theories, and management approaches related to nature based outdoor recreation and its management. Introduces a historical overview, the role of various agencies and interest groups, current stakeholder issues, impacts of recreation, and contemporary management approaches for addressing topics such as satisfaction, crowding, and conflict.
Recommended preparation: Prior coursework in environmental science, environmental studies, natural resources, or a related field.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%202550)

NRE 2600E. Global Sustainable Natural Resources. (3 Credits)
Sustainable management of natural resources across cultural, political, and ecological boundaries. Topics include marine and fresh waters, forests, food production, and urban development. CA 4-INT.
Skill Codes: COMP. Environmental Literacy
Content Areas: CA4INT: Div & Multi Intl
Topics of Inquiry: TOI4: Environmental Literacy, TOI5: Indiv Values Soc Inst
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%202600E)

NRE 3000. Human Dimensions of Natural Resources. (3 Credits)
Understanding the diverse perspectives of stakeholder groups involved in natural resources management. Analysis of decision-making behaviors based on social, psychological, and motivational factors; communication tools for working with stakeholder groups; and conflict resolution will be covered.
Open to juniors or higher.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203000)

NRE 3105. Wetlands Biology and Conservation. (3 Credits)
Principal wetland habitats of North America are surveyed, and the relationship of wildlife associations to biological and physical features of wetlands is reviewed. Emphasis is placed on issues relating to wetlands conservation and management. Requires one weekend field trip.
Open to juniors or higher. Recommended Preparation: BIOL 1107 or 1108 or consent of instructor.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203105)

NRE 3115. Air Pollution. (3 Credits)
The atmospheric effects and controls of air pollution and air quality, air pollution emissions and assessments, and impacts of atmospheric air pollutants.
Open to juniors or higher. Recommended preparation: NRE 3145 or 3146.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203115)

NRE 3125. Watershed Hydrology. (3 Credits)
Fundamental hydrologic processes, water balances, precipitation analyses, infiltration, soil water, evapotranspiration, open channel flow, discharge measurements, and analysis, flow frequencies, ground water-surface water interactions, runoff processes and prediction. Problem oriented course requiring use of computer spreadsheets.
Open to juniors or higher. Recommended preparation: NRE 2010.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203125)

NRE 3145. Meteorology. (3 Credits)
A survey course in meteorology at the introductory level covering weather and climate processes.
Open to juniors or higher.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203145)

NRE 3146. Climatology. (3 Credits)
Fundamentals of climatology: elements, processes, and mechanisms that govern or affect the climate and climate change, climatological theories and observations, climate across spatial and temporal scales, scientific methods for climatic analysis and applications.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203146)

NRE 3150. Green Stormwater Infrastructure Practices. (3 Credits)
Design specifications, installation processes, and maintenance of bioretention/rain gardens, pervious pavements, and green roofs will be covered. Stormwater retrofit analysis for municipalities will be introduced. Recommended preparation: NRE 3125.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203150)

NRE 3185W. Wetland Techniques. (4 Credits)
Wetland research techniques and skills associated with wetland delineation. Field, lab, and data analysis techniques commonly used by wetland professionals, including experience in data collection, analysis, interpretation, and written presentation. Field trips to implement field methods used to quantify wetland vegetation, soils, and hydrology.
STAT 1000Q or Higher; ENGL 1007 or ENGL 1010 or 1011 or 2011; NRE 3105.
Skill Codes: COMP. Writing Competency
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203185W)

NRE 3201. Conservation Law Enforcement. (3 Credits)
Basic pre-professional course for majors in natural resource conservation and related disciplines. Recommended for persons considering a career in wildlife, fisheries, law enforcement, or other natural resource conservation and management disciplines.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203201)

NRE 3245E. Environmental Law. (3 Credits)
An overview of environmental law including the common law principles of nuisance, negligence, and trespass. Students will become acquainted with legal research techniques; emphasis will be on federal, state, and municipal programs addressing clear air, clean water, hazardous waste, inland wetlands, coastal zone management, and prime agricultural farm land and aquifer protection.
Open to juniors or higher.
Skill Codes: COMP. Environmental Literacy
Topics of Inquiry: TOI4: Environmental Literacy
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203245E)

NRE 3250W. Contaminants in the Environment. (3 Credits)
Types and sources of environmental contaminants that threaten the integrity of aquatic and terrestrial ecosystems and the quality of natural resources; how contaminants cycle and distribute within and among ecosystems; and approaches for monitoring contaminant burdens in areas of concern. Experience in the written presentation of environmental contaminants data for broad and scientific audiences, including a focus on the process of writing and on writing skills development.
ENGL 1007 or 1010 or 1011 or 2011. Recommended preparation: CHEM 1122 or 1124Q or 1131Q and EEB 2244/W.
Skill Codes: COMP. Writing Competency
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203250W)

NRE 3255. Environmental Science and Policy in the Tropics. (4 Credits)
(Also offered as ENVS 3255.) Taught in Costa Rica. Evaluation of the conservation and management of natural resources using tools and perspectives relevant to both the natural and social sciences. Students are introduced to issues and problems in environmental science and conservation biology under three main themes: social and political history of Costa Rica as a case study of the neotropics, tropical ecosystem management, and the global environment. This course is offered in partnership with the Organization for Tropical Studies.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203255)

NRE 3265. Sustainable Urban Ecosystems. (3 Credits)
Evaluating the state of the knowledge about natural resources in urban systems from the perspectives of natural science and social science. Exploring the complexity of managing ecosystems in and in relation to urban environments.
Recommended preparation: prior coursework in environmental conservation.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203265)

NRE 3275. Recreational Trails: Design, Construction, and Management. (3 Credits)
This course provides an overview of sustainable, natural surface trail design principles and best practices. Students will learn to plan, construct and maintain trails in a variety of environmental settings. Coursework includes trail planning, field design and layout, assessing trail conditions, and working with hand-tools outside. This course will also provide students with a foundation for understanding the trail experience, as well as a natural resources management perspective towards using recreational trails for public outdoor recreation.
Open to sophomores or higher.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203275)

NRE 3305. African Field Ecology and Renewable Resources Management. (4 Credits)
An intensive, field oriented methods course conducted primarily in South Africa at the Basil Kent Field Station, Great Fish River Reserve in collaboration with the University of Fort Hare. An introduction to South Africa culture and history, ecology, and natural resources is provided in weekly meetings during the semester. This is followed by three weeks in the field in South Africa. Topics covered include vegetation and faunal surveys, data collection and analysis, biodiversity monitoring, and conservation management. A research paper relating to an independent study conducted by the student in the field is required. CA 4-INT.
Recommended preparation: EEB 2244.
Content Areas: CA4INT: Div & Multi Intl
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203305)

NRE 3335. Wildlife Management. (3 Credits)
Brief review of wildlife conservation and ecological principles; management of wetlands, farmlands, rangelands, and forest lands for wildlife; programs dealing with exotic, urban, nongame, and endangered wildlife; contemporary economic, administrative, and policy aspects of management.
NRE 2345. Recommended preparation: Prior course work in ecology.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203335)

NRE 3345. Wildlife Management Techniques. (4 Credits)
Design and implementation of projects for wildlife research and monitoring that address conservation and management issues. Topics include capture and handling of animals, population estimation, wildlife-habitat relationships, resource selection, and space use. This course is designed for pre-professional students and meets professional certification requirements. One or more field trips will be required.
NRE 2345; open to junior or higher Natural Resources majors, others by instructor consent. Recommended preparation: STAT 1100; MATH 1060, and MATH 1110 or higher; and EEB 2244E.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203345)

NRE 3345W. Wildlife Management Techniques. (4 Credits)
Design and implementation of projects for wildlife research and monitoring that address conservation and management issues. Topics include capture and handling of animals, population estimation, wildlife-habitat relationships, resource selection, and space use. This course is designed for pre-professional students and meets professional certification requirements. One or more field trips will be required.
NRE 2345; ENGL 1007 or 1010 or 1011 or 2011; open to junior or higher Natural Resource majors, others by instructor consent. Recommended preparation: STAT 1100; MATH 1060 and MATH 1110 or higher; and EEB 2244.
Skill Codes: COMP. Writing Competency
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203345W)

NRE 3365. Private Lands Wildlife Management. (3 Credits)
Companion course for Public Lands Wildlife Management (NRE 3355). Provides practical experience and acquaintance with persons or groups managing wildlife resources on private properties such as nature preserves, land trusts, non-governmental organizations, farms, recreational clubs, commercial shooting preserves and propagation facilities. Appreciation for private land management options, economic realities and other challenges, plus ability to assess resource potentials on private land, are stressed. Field trips required.
One 2000 level or above course in ecology or wildlife management; open to juniors or higher.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203365)

NRE 3385W. Fisheries Techniques. (3 Credits)
Techniques used in fisheries science to manage and conserve wild populations of fishes (and select bivalves and crustaceans). Topics include sampling design, gear selection, gear bias, animal capture and handling, habitat measurement and characterization, population estimation, commonly used data analyses, and scientific report writing. Laboratory meetings are often held outside at local waterbodies. Course is designed as a pre-professional experience for students interested in fisheries careers, and counts towards individual certification requirements set by the American Fisheries Society.
STAT 1000 or higher, ENGL 1007 or 1010 or 1011 or 2011; open to juniors or higher Natural Resources majors, others with instructor consent.
Skill Codes: COMP. Writing Competency
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203385W)

NRE 3390. South African Ecosystems and Diversity. (4 Credits)
(Also offered as EEB 3390.) Taught in South Africa. Understanding South Africa's diverse ecosystems with an emphasis on savannas. Classroom instruction and fieldwork in Kruger National Park, South Africa. Form and function of individual organisms and ecosystems. This course is offered in partnership with the Organization for Tropical Studies.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203390)

NRE 3425. Fundamentals of Arboriculture. (3 Credits)
Theory, science, and practice of evaluating, growing, managing and safe removal of trees within or in built environments. Laboratories are field-based and will take place in outdoor conditions. Taught with SANR 325. Recommended preparation: NRE 2415.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203425)

NRE 3490. Conservation, Biodiversity, Management, and Protected Area Design in South Africa. (4 Credits)
(Also offered as EEB 3490.) Study abroad in South Africa. History of conservation biology as a science and practice. Emphasis on the links between pattern and process, strategies and tools available to conservationists to maintain biodiversity; the relationship between biodiversity and ecosystem functioning and debates on the maintenance of biodiversity in human-dominated landscapes. This course is offered in partnership with the Organization for Tropical Studies.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203490)

NRE 3500. Exurban Silviculture. (4 Credits)
Application of ecological principles in controlling forest establishment, composition, health and growth. Study of cultural treatments that maintain and enhance desired benefits from the forest on a sustainable basis, with an emphasis on the diverse needs and values of landowners and society within the exurban forest.
NRE 2415; recommended preparation: NRE 2455.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203500)

NRE 3535. Remote Sensing of the Environment. (3 Credits)
The principles of the interpretation of remote sensing imagery acquired from aircraft and satellite platforms will be studied. Applications of remote sensing to natural resources and the environment will be discussed.
Open to juniors or higher. Recommended preparation: NRE 2000 or equivalent.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203535)

NRE 3674. Introduction to Environmental and Natural Resources of China. (1 Credit)
Basics about the environmental and natural resources of China, including geography, climate, agriculture, history and culture.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203674)

NRE 3675. Environmental and Natural Resources of China. (3 Credits)
Introduction to the environment of China, focusing on the management and sustainability of natural resources and environmental systems. A field trip to China is required.
Open to Juniors or higher; advanced sophomores (above 50 credits) may be considered. Recommended preparation: NRE 3674.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203675)

NRE 3690. Field Study Internship. (1-6 Credits)
Designed to acquaint students through actual work experience with research and management activities not available on campus. Students will work with professionals in an area of concentration. Student evaluation will be based upon the recommendation of the field supervisor and a detailed written report submitted by the student. This course may be repeated provided that the sum total of credits earned does not exceed six. Students taking this course will be assigned a final grade of S (satisfactory) or U (unsatisfactory).
Open to juniors or higher.
May be repeated for credit
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203690)

NRE 3693. Foreign Studies in Natural Resources. (1-6 Credits)
Courses taken in Natural Resources and related areas as part of an approved Study Abroad Program. Students may only count a maximum combined credit total of 6 credits toward the Natural Resource major of foreign study, Independent Study and Internship credits.
May be repeated for credit
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203693)

NRE 3699. Independent Study. (1-6 Credits)
Open to juniors or higher.
May be repeated for credit
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%203699)

NRE 4000W. Natural Resources Planning and Management. (3 Credits)
Concepts and methods of planning for the allocation, management and utilization of terrestrial and aquatic ecosystems. Techniques and methods of managerial decision making. Written technical reports required.
Senior standing; ENGL 1007 or 1010 or 1011 or 2011; open only to Natural Resources and Environmental Science majors, or by instructor consent.
Skill Codes: COMP. Writing Competency
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204000W)

NRE 4094. Seminar. (1 Credit)
Open only to senior Natural Resources majors, others with consent of instructor.
May be repeated for credit
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204094)

NRE 4135. Introduction to Ground Water Hydrology. (4 Credits)
(Also offered as ERTH 4735.) Basic hydrologic principles with emphasis on ground water flow and quality, geologic relationships, quantitative analysis and field methods. Occasional field trips. Formerly offered as GSCI 4735.
Open to juniors or higher. Recommended preparation: ERTH 1050, or both ERTH 1052 and one of ERTH 1010, 1051, 1055, or 1070.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204135)

NRE 4150. Ecosystem Science and Management. (3 Credits)
Ecosystem biogeochemical processes, the organism-environment interactions that regulate them, and natural resources management strategies that explicitly consider ecosystem structure and function. EEB 2244E or equivalent general ecology course; CHEM 1127Q or equivalent general chemistry course; instructor consent required. This course and NRE 5150 may not both be taken for credit.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204150)

NRE 4165. Soil and Water Management and Engineering. (3 Credits)
Floodplain management, erosion and erosion control, reservoir management, storm water control, watershed management, and on-site sewage treatment systems. Written technical reports, use of spreadsheets and field work required. Some field trips required.
Open to juniors or higher. Recommended Preparation: NRME 3125 or CE 4820.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204165)

NRE 4170. Climate-Human-Ecosystem Interactions. (3 Credits)
Understanding pathways of interactions among climate change, ecological processes, and human activities through time are studied. Feedbacks that either reinforce or limit such interactions will also be discussed.
Open to juniors or higher. Recommended preparation: introductory courses in climate and environmental science.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204170)

NRE 4180. Climate Change Adaptation Science. (3 Credits)
An overview of climate change adaptation science including knowledge, principles, and applications of adaptation practices, technologies, tools, and strategies. Topics include the scientific evidence of anthropogenic climate change, climate change impacts on our lives and society, two-way relationships between climate change and humans, and multiple approaches applied in adaptation across diverse sectors (agriculture, forestry, fisheries, etc.) from local to regional and global scales. Emphasis on the fundamental concepts of climate change adaptation science, different disciplinary perspectives and interconnections, and its effectiveness, limitations, and future needs.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204180)

NRE 4205. Stream Ecology. (3 Credits)
A broad overview of stream ecology will be presented. Topics covered will include stream habitats and the diversity of organisms which inhabit them, adaptations to life in running water, and energy flow and nutrient cycling in stream ecosystems. Efforts targeted at the conservation of streams will be integrated throughout the semester. One or more field trips required. Formerly offered as NRE 3205. Taught with NRE 5335.
Open to juniors or higher. Recommended preparation: BIOL 1108 or equivalent.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204205)

NRE 4255. Water Quality Management. (3 Credits)
An introduction to all aspects of water quality problems relating to the many beneficial uses of water, including the physical, chemical, and biological properties. Formerly offered as NRE 3155.
Open to juniors or higher. Recommended preparation: NRME 3125 or 4165.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204255)

NRE 4335. Fisheries Management. (3 Credits)
Introduction to fisheries management principles with application to the biotic, habitat, and human components of fisheries. Selected topics include harvest regulations, stocking, population dynamics, endangered species, and habitat management practices in coastal and freshwater fisheries. Students will practice interpreting fisheries data which can inform the adaptive management of and regulation decision making in fisheries.
STAT 1000Q or higher; open to juniors or higher. Recommended preparation: NRE 3385W.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204335)

NRE 4340. Ecotoxicology. (3 Credits)
Understanding the fate and effects of environmental contaminants. Major classes of contaminants and their sources, uptake, biotransformation, elimination, bioaccumulation, biomagnification and toxicological effects in organisms will be covered. Discussions are focused around case studies, readings, and class presentations that further explore toxicant exposures and responses in ecosystems.
Open to juniors or higher. Recommended preparation: a course in chemistry and biology.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204340)

NRE 4370. Population Dynamics. (3 Credits)
How population dynamics models are used in science and in the management of fish and wildlife populations, factors influencing population dynamics. Design, evaluation, and use of a population model.
Open to juniors or higher. Advanced sophomores (above 50 credits) may be considered. Recommended preparation: STAT 1100Q, MATH 1060Q, and MATH 1110Q or higher, and NRE 3345.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204370)

NRE 4390. Fundamentals of Tropical Biology. (4 Credits)
(Also offered as EEB 4390.) Taught in Costa Rica. Fundamental principles of tropical biology, the natural history of local ecosystems, and field methods for biological studies. Natural, tropical ecosystems are used as the platform to develop hypotheses and methods, analyze data, and present the results of scientific projects. This course is offered in partnership with the Organization for Tropical Studies.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204390)

NRE 4425. Urban and Community Forestry. (3 Credits)
The theory, science and practice of evaluating and managing urban trees and forest resources, recognizing urban forest resources as part of socio-ecological economic systems.
Recommended preparation: NRE 2415 and 3425.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204425)

NRE 4475. Forest Management. (4 Credits)
Application of forest mensuration, ecology, and silviculture in sustainable forest managment. Field trips required.
NRE 2415; open to juniors or higher. Recommended preparation: NRE 3500.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204475)

NRE 4490. Tropical Biology on a Changing Planet. (4 Credits)
(Also offered as EEB 4490.) Taught in Costa Rica or South Africa. Fundamental principles of tropical biology and natural history of local plants and animals. Coursework highlights ecological complexity of the tropics, patterns of species diversity, and species interactions. Field visits to a variety of ecosystems including tropical wet forest, dry forest/wetland, premontane wet forest, cloud forest, páramo, oak forest, mangrove forest, or coastal marine. This course is offered in partnership with the Organization for Tropical Studies.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204490)

NRE 4535. Remote Sensing Image Processing. (3 Credits)
The principles of quantitative remote sensing, image processing and pattern recognition will be studied. Computer-assisted data analysis techniques will be used.
NRE 2000 or 3535; open to juniors or higher.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204535)

NRE 4544. Land Surveying for Environmental Management and Planning. (4 Credits)
Use of spirit levels and total stations for high-accuracy land measurement, with applications to common practices in natural resource management and planning. Students will learn to perform control surveys and to create detailed maps from the control surveys.
Recommended preparation: NRE 2000.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204544)

NRE 4575. Natural Resource Applications of GIS. (4 Credits)
Principles and applications of computer-assisted spatial data analysis in natural resources management. Hypothetical and actual case studies of the use of geographic information systems (GIS) to solve natural resource problems will be discussed. Raster- and vector-oriented, microcomputer-based GIS software will be applied.
Open to juniors or higher.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204575)

NRE 4601. Current Topics in Environmental and Natural Resources - Honors. (3 Credits)
An exploration of a diverse set of environmental and natural resource topics that will be examined using a continuum of applied-to-theoretical approaches. Each week, readings will introduce and familiarize students with a guest lecturer's research and allow students to engage in an in-depth discussion with each lecturer prior to attending their seminar. Honors students will meet for an hour after each seminar and will include student-led discussion and presentations on the seminar research topic. Open only to Junior or higher Honors students. Not open to students who have completed NRE 4600.
Grading Basis: Honors Credit
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204601)

NRE 4665. Natural Resources Modeling. (3 Credits)
Applications of conservation of mass, energy and momentum in modeling natural resources systems. Defining systems; determining flows and storages; interactions and feedback mechanisms within systems. Problem oriented course including computer solutions using spreadsheets or modeling programs.
MATH 1120 or higher; open only to Natural Resources majors, others with instructor consent; open to juniors or higher.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204665)

NRE 4695. Special Topics. (1-6 Credits)
Topics and credits to be published prior to the registration period preceding the semester offerings.
Open to juniors or higher.
May be repeated for credit
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204695)

NRE 4696. Undergraduate Research in Natural Resources. (2-6 Credits)
Field or laboratory research performed by the advanced undergraduate student in an area of natural resources under the supervision of a NRE faculty member. A report and/or an oral presentation will be required at the end of the semester.
Open to juniors or higher.
May be repeated for a total of 6 credits
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204696)

NRE 4697W. Undergraduate Research Thesis in Natural Resources. (3 Credits)
Writing of a formal thesis based on independent research conducted by the student. Thesis proposal and final thesis must follow guidelines developed by the Department; and be submitted to, and approved by, a department review committee.
Three credits of either NRE 3699 or 4696, which may be taken concurrently; ENGL 1007 or 1010 or 1011 or 2011; open to juniors or higher; open only with consent of instructor.
Skill Codes: COMP. Writing Competency
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204697W)

NRE 4990. Directed Field Experience. (4 Credits)
(Also offered as EEB 4990.) Taught in Costa Rica or South Africa. An introduction to research design, field methods, and basic data analysis in a tropical context. Hypothesis testing and statistical analysis, including orientation to basic software packages. Students design, implement, and analyze data for their own field projects. This course is offered in partnership with the Organization for Tropical Studies.
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204990)

NRE 4998. Variable Topics. (1 Credit)
Prerequisites and recommended preparation vary.
May be repeated for credit
View Classes (https://catalog.uconn.edu/course-search/?details&code=NRE%204998)