

ENV - ENVIRONMENTAL STUDIES

ENV 104 Sustainability for a Healthy Planet (3 Credit Hours)

An introduction to environmental challenges and opportunities which emphasizes that humans are part of ecosystems within interdependent cycles which involve other organisms, air, water, chemicals, and energy. The course examines the relationships of humans to their environment from historical, economic, scientific, aesthetic, and ethical perspectives. May be repeated for credit. *Equivalent to ENV 105.*

Academic Level: Undergraduate

ENV 105 BGLC: Sustainability for a Healthy Planet (3 Credit Hours)

This is a one-semester 3-credit course that is required for Environmental Science, Environmental Studies, and Sustainability and Business majors, as part of the first-year Blue-Green Learning Community (BGLC). Students in other majors are welcome to join the BGLC on a space available basis, provided that they are co-enrolled in the other BGLC courses. The course examines the relationships of humans to their environment from historical, economic, scientific, aesthetic, and ethical perspectives. In addition to raising awareness of environmental issues, our aim is to explore and critically assess the wide range of ideas, ways of understanding, and practices encompassed within the field of Environmental Studies.

Academic Level: Undergraduate

Enrollment is limited to students with a program in Environmental Science, Environmental Studies, Sustainability Business or Sustainability Business.

ENV 124 Lit, Nature & the Environment (3 Credit Hours)

This introductory course investigates the power of literature to express common human desires and to reveal relationships between humans and the rest of the natural world. Formal and eco critical approaches are emphasized, and other methods are surveyed, as part of the effort to understand literature's intrinsic value. The course is integrated with courses in environmental studies, biology and green economics. **ROLE IN CURRICULUM** This course is required for first-year Environmental Studies and Environmental Science majors as part of the Green Learning Community. It meets the Exploration requirement of the Core Curriculum. *Equivalent to LIT 124.*

Academic Level: Undergraduate

Enrollment is limited to students with a major in Aquacult Aquar Sci Aquaponics, Aquaculture Aquarium Science, Environmental Science, Environmental Studies, Marine Affairs, Marine Biology, Marine Entrepreneurship, Sustainable Eco Aquaculture, Sustainability Business or Sustainability Business.

Enrollment limited to students with the Green Learn Community attribute.

ENV 130 Political Ecology and Economic Justice (3 Credit Hours)

Ecology and economy share the same root – eco, from the Greek for home. In this course, students will uncover the complex interrelationship between ecology and economy, and in doing so, will develop an understanding of how political ideology and particularly capitalist consumerism shape our environment and our relationship to it. Using a political ecology lens, we will examine how and why economic systems and power impact environmental change in an increasingly interconnected world.

Academic Level: Undergraduate

Enrollment is limited to students with a major in Aquacult Aquar Sci Aquaponics, Aquaculture Aquarium Science, Environmental Science, Environmental Studies, Marine Affairs, Marine Biology, Marine Entrepreneurship, Sustainable Eco Aquaculture, Sustainability Business or Sustainability Business.

Enrollment limited to students with the Green Learn Community attribute.

ENV 200 Environment and Society: A Global Perspective (3 Credit Hours)

This course employs a global geographic, social sciences perspective to examine the interactions between society, population and the environment. The course begins with an introduction to population-environment theories, social science frameworks that link to the environment and demography. We then employ this foundation to examine diverse environmental issues, including rapid urbanization and human health effects, biodiversity loss and deforestation, global climate change, material living conditions, and resources scarcity and conflict. We consider how these issues vary around the world and the applicability of cultural, policy, organizations and technical management approaches to promoting environmental sustainability and human well-being. May be repeated for credit.

Academic Level: Undergraduate

ENV 204 Urban Forestry (3 Credit Hours)

You will be introduced to the urban forest as a social construct, environmental feature, and phenomenological experience. Most people across the globe live in cities and towns, and their experience of nature is derived primarily from the urban and peri-urban landscape. We will explore the relationship between people and the urban forest from a historical, psychological, sociological, legal, policy, environmental and global perspective. In particular, we will examine the psychological, sociological, and ecosystem services provided by urban forests; the function of urban forests in the build environment; the autecology of urban trees; issues impacting urban forest sustainability and principles of urban forest management and policy.

Academic Level: Undergraduate

ENV 208 Climate Change: Causes, Consequences, and Solutions (3 Credit Hours)

Climate change promises to be one of the defining environmental and social problems of our lifetimes. This course examines global impacts of climate change on human and natural systems, especially the types and distribution of impacts across continents and sectors of society, with special emphasis on social, political, and ethical dimensions of the problem. The course will then examine the full spectrum of solutions including personal, technical, social, and political solutions at scales from local to global.

Academic Level: Undergraduate

ENV 215 Field Methods in Conservation (3 Credit Hours)

This field course will focus on the research skills necessary to investigate the condition of natural resources and the social/political and economic factors that influence them. These skills will include: identification and knowledge of local natural history, field research skills such as experimental design, sampling techniques, map-reading, orienteering and use of global positioning systems (GPS); data entry, analysis, and scientific report writing; communication skills (writing, speaking and listening); and team-building skills necessary to complete cooperative projects successfully. This course fulfills a major requirement for Environmental Science & Studies students.

Academic Level: Undergraduate

Enrollment is limited to students with a major in Environmental Science or Environmental Studies.

ENV 220 Conservation and Preservation (3 Credit Hours)

This course builds on an understanding of the historical roots of conservation and preservation as related but distinct concepts. It then focuses on biodiversity, including causes of its decline and methods used to stop/prevent this decline. The values and ethics, legal foundations and economic influences on the conservation of biodiversity are also explored. The controversy surrounding the idea of Wilderness as areas "untrammelled by man" is analyzed and discussed from historical and current perspectives. Finally, students apply knowledge gained to real-world situations in conservation and preservation.

May be repeated for credit.

Academic Level: Undergraduate

ENV 220L Conservation/Preservation Lab Conservation/Preservation Field Lab (2 Credit Hours)

This field course will focus on the research skills necessary to conduct an investigation of the condition of natural resources and the social/political and economic factors that influence them. These skills will include: identification and knowledge of local natural history, field research skills such as experimental design, sampling techniques, map-reading, orienteering and use of global positioning systems (GPS); data entry, analysis, and scientific report writing; communication skills (writing, speaking and listening); and team-building skills necessary to complete cooperative projects successfully. Offered fall semester.

May be repeated for credit.

Academic Level: Undergraduate

ENV 240 Env Sustainability Lab (2 Credit Hours)

Students will engage in a relevant and hands-on sustainability project on the campus of the University of New England or in the larger community. Concepts and data drawn from prior Core Environmental Studies courses will inform student efforts. Classroom discussion will focus on components of sustainable living and behavior adoption. Skill development activities will include strategic planning, survey development, social marketing, proposal writing, and written and oral communication. Students will learn through experience how to deal with actual political, social, communications and economic factors in completing their project.

May be repeated for credit.

Academic Level: Undergraduate

ENV 250 Envir Policy Compar Perspect (3 Credit Hours)

The purpose of this course is to help us better understand why environmental issues arise and how policymakers, organizations, and nations choose to respond or not to respond to them through the policy making process. Students will gain a better understanding of the nature of environmental policy, how it is made and changed at the local, national, and international levels. We will also explore the scientific, ethical, social, economic, political, and cultural forces that influence the creation, implementation, and success of environmental policy. In addition to reading and discussing assigned literature, through a semester project students will have the opportunity to analyze in more depth how environmental policy in regard to a specific environmental issue is shaped by such forces.

Academic Level: Undergraduate

ENV 261 Gulf of Maine Field Studies I (1.5 Credit Hours)

This Fall semester course will help students learn how to tackle environmental problems in local communities by using the changing Gulf of Maine as a laboratory. The impacts of climate change on the Gulf, as well as mitigation and adaptation strategies will be explored. We will then focus on solving a specific problem or issue important to local citizens. Field work with community partners, research, and interactions with community members, scientists, and other professionals are important components of this course. Communication with a variety of audiences through oral presentations and writing will be emphasized. This course is interdisciplinary in nature (students will gain experience in both the natural and social sciences) and includes hands-on engagement in environmental issues. This Fall semester course focuses on community engagement and on collecting and analyzing natural science data.

Academic Level: Undergraduate

Enrollment is limited to students with a major in Aquacult Aquar Sci Aquaponics, Aquaculture Aquarium Science, Environmental Science, Environmental Studies, Marine Affairs, Marine Biology, Marine Entrepreneurship, Sustainable Eco Aquaculture, Sustainability Business or Sustainability Business.

Enrollment limited to students in the BS-DES program.

ENV 262 Gulf of Maine Field Studies II (1.5 Credit Hours)

This Spring semester course will help students learn how to tackle environmental problems in local communities by using the changing Gulf of Maine as a laboratory. The impacts of climate change on the Gulf, as well as mitigation and adaptation strategies will be explored. We will then focus on solving a specific problem or issue important to local citizens. Field work with community partners, research, and interactions with community members, scientists, and other professionals are important components of this course. Communication with a variety of audiences through oral presentations and writing will be emphasized. This course is interdisciplinary in nature (students will gain experience in both the natural and social sciences) and includes hands-on engagement in environmental issues. This spring semester course focuses on community engagement and on collecting and analyzing social science data.

Academic Level: Undergraduate

Enrollment is limited to students with a major in Aquacult Aquar Sci Aquaponics, Aquaculture Aquarium Science, Environmental Science, Environmental Studies, Marine Affairs, Marine Biology, Marine Entrepreneurship, Sustainable Eco Aquaculture, Sustainability Business or Sustainability Business.

ENV 295 Environmental Internship (3-4 Credit Hours)

An internship is a high impact learning experience where knowledge and theory from students' program of study are integrated with shadowing, volunteering, or paid employment with a private company, not-for-profit organization or government agency toward the intentional development of transferable knowledge, skills and abilities and practical application of professional competencies. The semester prior to the internship, Academic and Career Advising Center staff assist students with preparing their application materials and searching and applying for environmentally related internships within the local community, stateside or abroad, as well as in defining learning objectives, educational and career goals, and professional deliverables to be met throughout the course of training and practice. During the semester of the internship course, under the mentorship of a dedicated professional who has the education and/or background and expertise of the students' discipline of study, students immerse in a remote, hybrid or in-person professional setting. Through guidance, support and regular feedback from the mentor and internship course instructor, students strive to satisfactorily learn and practice their internship position and achieve their learning objectives. Students follow a course curriculum including: 40 contact hours at the host site per credit hour registered; participation in classes, meetings or workshops as scheduled by the course instructor; timely completion of homework assignments in support of student learning outcomes, professional readiness and career exploration; and end of semester evaluations. Internships culminate in a letter grade determined by the above criteria. Written pre-approval of the internship by the course instructor and Academic Director is required.

May be repeated for credit.

Academic Level: Undergraduate

Enrollment limited to students with the UG Internships attribute.

ENV 311 Ecological Monitoring (3 Credit Hours)

Ecological monitoring provides important information about changes in the environment over time. Following a discussion of the principles and practice of ecological monitoring, students will learn about and participate in monitoring projects involving water quality, wetlands, forests, and more. They will gain experience in sampling design, data collection and management, data analysis, interpretation, and communication of results. Students will apply their knowledge of ecological monitoring in a semester-long project where they develop a monitoring plan in collaboration with local stakeholders. Interactions with professionals in the field are an important part of this course.

Academic Level: Undergraduate

ENV 311L Ecological Monitoring Lab (1 Credit Hours)

In this field lab, students will participate in one or more ecological monitoring projects in our local area. They will also analyze data using appropriate statistics and report findings in the scientific format.

Academic Level: Undergraduate

Corequisites: ENV 311

ENV 312 Wetland Conservation & Ecology (3 Credit Hours)

Overview of coastal and inland wetland ecosystems and issues related to the conservation of these important habitats. Lectures and discussions will begin with an exploration of wetland hydrology, soils and vegetation. Building on this knowledge, we will then focus on approaches to managing and protecting these habitats. Course will include visits to local sites and interactions with a variety of professionals working in wetland conservation.

Academic Level: Undergraduate

Corequisites: ENV 312L

ENV 312L Wetland Conserv & Ecology Lab (1 Credit Hours)

This lab includes field investigations of local freshwater and coastal wetland habitats, assessment of creation and restoration sites, analysis of field samples, data analysis and report writing.

Academic Level: Undergraduate

Corequisites: ENV 312

ENV 313 Wetland Rest: Science & Policy (3 Credit Hours)

This course examines wetland restoration from both scientific and policy perspectives. More than half the wetlands in the United States have been lost due to human impacts. For the past 30 years, wetland losses have been mitigated in part by restoring, enhancing and creating wetlands, due to our "no net loss" policy. But are these projects successful in replacing the functions and values of impacted wetlands? We will also learn about the growing number of community-based restoration projects, where wetlands are restored simply because people value them. The course includes visits to local wetland sites, interactions with professionals in the field, discussion of recent literature and a field-based class project.

Academic Level: Undergraduate, Graduate

ENV 313L Wetland Rest: Science&Pol Lab (1 Credit Hours)

This field work includes field investigations of local wetland restoration projects, data analysis and scientific report writing.

Academic Level: Undergraduate

Corequisites: ENV 313

ENV 318 Advanced Field Methods in Avian Ecology & Conservation (4 Credit Hours)

This class leads to a deeper appreciation for the diversity of avian species that live in and migrate through southern Maine. During the first half of the semester students will develop the ability to use mist nets to handle birds safely and respectfully, while collecting data to support a long-term bio-monitoring dataset for UNE's 363 acre property. In the second half of the semester, students will analyze the collective data to understand patterns of diversity, taxonomic classifications, ecological processes, and natural history. The field and analytical skills learned in this class will provide strong research skills necessary for employment or graduate studies.

Academic Level: Undergraduate

Corequisites: ENV 318L

ENV 318L Adv. Research Meth/Avian Ecol Lab

In this field-based lab students operate a fall migration bird banding station in the UNE 363-acre forest parcel. The students learn to extract birds from mist-nets, use guides to identify birds to species, sex and age, take morphological measurements, band, analyze data, and enhance their science writing.

Academic Level: Undergraduate

Corequisites: ENV 318

ENV 319 Practicum in Field Ecology (1 Credit Hours)

This course allows students to develop field skills that they were introduced to in other applicable courses. These skills will be refined to a level equal to what would be expected for professional field research and graduate school research.

May be repeated for credit.

Academic Level: Undergraduate

ENV 321 Environmental Communication: Expert Practices for Ecosystem Management (3 Credit Hours)

Environmental communication provides interdisciplinary theories and practices that connect ecosystem management, environmental science, public policy deliberation, and participatory decision-making. The principles and practices of environmental communication can be applied to develop collaborative solutions to complex environmental issues and to increase the application and impact of science. This course will introduce students to key theories and methods of environmental communication and engage them in a community based research project applying principles and methodology learned in the class. Emphasis will be on understanding real world examples of environmental communication. Students will learn how to design effective strategies to achieve a variety of environmental outcomes. Students will learn and practice methods of systematic assessment, analysis and evaluation of field situations in the local community where people are engaged in environmental discourse, science translation and participatory decision-making.

Academic Level: Undergraduate

ENV 331 Women and the Environment (3 Credit Hours)

This interdisciplinary course is designed to take an in-depth look at the relationship between women and the environment over time. We will explore several themes, which may include the changing role of women in the U.S. conservation/environmental movements; women, science and nature; how women relate to the natural world; women, health and the environment; women and wilderness; women and nature in the developing world; ecofeminism; and women as advocates for the environment. Throughout the course we will explore what role gender plays in our complex relationships with the environment.

Academic Level: Undergraduate

ENV 333 Nature Writers w/ Field Lab (4 Credit Hours)

This course explores literature that depicts the natural world with affection, respect, imagination and concern by examining the nature writing traditions of England and America, including the work of women, Indigenous people, and Black Americans. Because these traditions often present an alternative paradigm to that of modern industrial and corporate culture, examination of the literature leads to discussion of how historical influences, including science, religion, patriarchy, colonialism, racism, and economics, have shaped attitudes toward nature and contributed to consequent environmental problems. Fully integrated with the study of literature is weekly field work that affords opportunities for students to experience landscapes and waterscapes (ecosystems) on campus similar to those described in the texts.

Academic Level: Undergraduate

Corequisites: ENV 333L

ENV 333L Nature Writers Lab

This weekly lab integrates the reading of literature with field experiences by means of visitation to a variety of land and waterscapes (ecosystems).

Academic Level: Undergraduate

Corequisites: ENV 333

ENV 335 Env Hist of New Eng Seminar (3 Credit Hours)

This course examines the environmental history and ecological history of New England. Primary objectives are to develop command of major questions and concepts of the field, to develop capacity to interpret primary sources, and to learn to construct a historical narrative, based on primary and secondary sources. A distinctive course element is examination of the landscape as a historical document. In addition, students engage with public history. We explore several New England case studies using a combination of literature, archival materials, and field trips. Units typically include 1) rivers and mill towns; 2) estuaries, coastlines, and islands; 3) forests and wildlife; 4) farms, pastures, and livestock; 5) urban areas. This course concludes with a research project: students apply environmental historical research skills to a place, culminating in a formal presentation and public history product.

Academic Level: Undergraduate

ENV 340 Environ Movemnts/Social Change (3 Credit Hours)

This course engages students in a critical and comparative examination of environmental movements around the world. Students will examine how various social movement theories apply to environmental movements and analyze how gender, ethnicity, race, and class relate to environmental thinking and action. Students will apply these theoretical perspectives to several case studies of contemporary social and environmental movements, and to a weekend field experience at an eco-village. Finally, students will investigate the origins, evolution, and current status of the American environmental movement, before learning about environmental movements in the global South and comparing them to environmental movements in the North. The course concludes with an assessment of the future of environmental and social movements, and discusses what a sustainable activism for the 21st century might look like.

Equivalent to ENV 322.

Academic Level: Undergraduate

ENV 341 Ind Eco, Con Bio/Pol of Nature (3 Credit Hours)

This seminar in environmental politics focuses on the local-global interaction between indigenous ecological knowledge and Western environmental science in regard to the conservation, use, and management of biodiversity. Students will become more aware of the complexities and conflicts involved in protecting biodiversity and upholding the rights and well-being of indigenous peoples. Students will learn how such conservation conflicts: a) are rooted in differing epistemologies of nature and humans' relationship to nature; and b) are characterized by significant power differentials. By better understanding the roots of these "politics of knowledge", students will gain insight into how conflicts might be resolved so as to improve the conservation of both cultural and biological diversity.

Academic Level: Undergraduate

ENV 342 Env Racism/Env Justice Mvmnt (3 Credit Hours)

This course addresses how environmental costs and benefits are unequally distributed within society on the basis of race, socioeconomic class, and gender. It includes study of the definitions of environmental justice and the origins of environmental injustice in structural racism and colonialism; methods for learning about environmental injustice in terms of both epistemology and research ethics; and assessment of the role of policy and the law in achieving environmental justice. It then applies these analyses to actual cases of environmental injustice in the U.S. and around the world, studying also the responses to such injustices through actions of environmental justice movements.

Academic Level: Undergraduate

ENV 349 Env, Hlth, Comm Dev E Africa (3 Credit Hours)

This advanced seminar in Environmental Studies will introduce you to major environmental, development, and health concerns facing the region of East Africa. Through reading, discussion, research, and presentations, you will gain a better understanding of the inextricable connections between these three critical realms in relation to both East African societies and the natural environments on which they depend. The course will begin with setting current conditions in a historical context, exploring the nature and primary influences of pre-colonial, colonial, and post-colonial forces on both the land and its peoples. It will go on to explore key issues currently facing the region including its interaction with global development organizations and global capitalism, internal and external causes of current conflicts, root causes of environmental degradation, political leadership or the lack thereof, and the strength of civil society in creating positive social and environmental change. We will meet these objectives through a variety of means—reading and discussing key literature, engaging in a variety of interactive learning activities, keeping journals, preparing research presentations, and, as opportunities arise, hearing from guest speakers with experience in the region. 3.000 Credit hours

Academic Level: Undergraduate

Corequisites: ENV 349L

Enrollment limited to students with the Global Ed. Travel Course Appro attribute.

ENV 349L Env, Hlth, Comm Dev E Africa (1 Credit Hours)

This 22-day field experience in Kenya is the study abroad component of the lecture course ENV 348. Through direct experience with non-profit organizations, Kenyan schools, local communities, and Kenyan families and individuals, we will learn first-hand about the environmental and social issues we will have studied for a semester prior to embarking on our study abroad in Kenya. After a short stay in Nairobi, Kenya's capital, we will spend four days in the Southern Rift region working with SORALO (South Rift Association of Land Owners), a community-based conservation project, where we will encounter and learn about issues facing Kenya's wildlife and Maasai communities. We will return for an overnight in Nairobi and then travel west across the Rift Valley to Kisumu, Kenya's third largest city, located on the shores of Lake Victoria. We will visit Maseno University, and pending confirmation, take part in a mini-symposium with university students or students from local high schools. We will learn about the major environmental challenges facing Lake Victoria, and engage with a variety of community projects with members of three Kenyan NGOs (NYADEC—Nyando Development Community Centre for Environmental Conservation, SWAP—Safe Water and Aids Project, and KEEP—Kakamega Environmental Education Programme) addressing issues of health, environment, and/or development in the Lake Victoria Basin. During home stays, you will be able to interact and form friendships with Kenyan families, partaking in a slice of daily Kenyan life. We will have one day back in Nairobi before flying back home. The overall goal of the field component of the course is to provide additional knowledge about the environment, health, and community development in East Africa through direct transformative experience. 1.000 Credit hours

Academic Level: Undergraduate

Corequisites: ENV 349

Enrollment limited to students with the Global Ed. Travel Course Appro attribute.

ENV 356 Terrestrial Wildlife Eco/Cons (4 Credit Hours)

This course focuses on the ecology and conservation of terrestrial wildlife, particularly focusing on North American mammals and birds. We explore population dynamics, behavioral ecology and wildlife management and how these ecological concepts are affected by human habitat management. The field-based lab develops and refines natural history skills necessary to census and understand terrestrial wildlife populations in diverse habitat types found in the winter in southern Maine.

Academic Level: Undergraduate

Corequisites: ENV 356L

ENV 356L Terrestrial Wildlife Eco/Conserv Lab

The field-based lab develops and refines natural history skills necessary to census and understand terrestrial wildlife populations in diverse habitat types found in the winter in southern Maine.

Academic Level: Undergraduate

Corequisites: ENV 356

ENV 359 Plant System/Conserv Applications (4 Credit Hours)

This course begins with plant systematics, where students gain an understanding of the evolutionary history of plants and learn about taxonomy (description, identification, nomenclature and classification). We go on to discuss various strategies being used to protect and restore plants, both locally and around the world. Students gain field experience by assisting local conservation organizations in the protection of plants and their habitats.

Academic Level: Undergraduate

Corequisites: ENV 359L

ENV 359L Plant System/Cons Applications Lab

This lab includes field investigations, data analysis and report writing. Students survey plant communities on conservation properties and conduct monitoring of native and invasive plants in a variety of local habitats. The results of this work are shared with local conservation organizations.

Academic Level: Undergraduate

Corequisites: ENV 359

ENV 365 Climate Change Adaptation (3 Credit Hours)

Societies around the globe are already experiencing the impacts of climate change. There is a pressing need to develop and implement plans and policies to enable societies to adapt to both observed and expected changes in climate. In this course, students will learn to apply theoretical concepts from the field of adaptation science, to analyze and interpret climate projections and related data, and to develop and communicate policy-relevant advice to inform climate adaptation decisions.

Academic Level: Undergraduate

ENV 372 Forest Landscape Ecology & Management (3 Credit Hours)

This course introduces students to the science and practice of managing forest ecosystems, specifically temperate and transitional boreal ecosystems, and forested landscapes. Course content engages students with theories, concepts and methods of the fields of forest ecology, landscape ecology, silviculture, and forest management. The course foundation is forest ecology: students examine ecosystem structure and function at scales ranging from the site, community, to whole landscape. We then apply this foundation to applied forest management problems: through a series of case studies, examinations of remotely-sensed imagery (e.g., aerial photographs) and field experiences, students develop skills to manage forested landscapes to meet diverse objectives, including biodiversity conservation, timber production, provision of wildlife habitat, water quality, recreation, and aesthetic values. Students develop skills and knowledge relevant to careers in natural resource management, habitat conservation and restoration, land use planning, and environmental policy and economics.

Academic Level: Undergraduate

ENV 398 Topics ENV Studies (3 Credit Hours)

This course offers an in-depth study of a topic in the fields of environmental studies. Employing an interdisciplinary approach, the course builds upon prior knowledge and skills attained in the Environmental Core Courses. It may be taken more than once as the topic changes. Some examples of this course include: 1) Literature and Climate Change 2) Biotech for Species Rescue 3) Just & Sustainable Food Systems for a Climate in Crisis.

May be repeated for credit.

Academic Level: Undergraduate

ENV 399 Topics ENV Studies w/ Field Lab (4 Credit Hours)

This course offers an in-depth study of a topic in the field of environmental studies and includes a laboratory experience. Employing an interdisciplinary approach, the course builds upon prior knowledge and skills attained in the Environmental Core Courses. It may be taken more than once if topic changes. Third- or fourth-year standing, or permission of instructor, is required. Recent examples of course topics include: Field Systematic Botany with Conservation Applications

May be repeated for credit. *Equivalent to BIO 401.*

Academic Level: Undergraduate

Corequisites: ENV 399L

ENV 399L Topics ENV Studies Lab

An intensive, hands-on accompaniment to the ENV 399 Topics ENV Studies w/Field Lab course. Examples of the lab experience would include field trips to appropriate locations such as local land conservation sites, water treatment plants, legislative sessions, lectures, performances, as well as activities such as wetland identification surveys, biodiversity identification, watershed mapping, photography, creative writing, archival research.

May be repeated for credit.

Academic Level: Undergraduate

Corequisites: ENV 399

ENV 410 Environmental Research (1-9 Credit Hours)

This course is for advanced majors who may wish to undertake directed research as a special course. A carefully prepared written plan must be presented and approved by faculty. GPA of 3.0 or written permission of faculty sponsor.

May be repeated for credit.

Academic Level: Undergraduate

Enrollment limited to students with the UG Research attribute.

ENV 495 Adv. Environmental Internship (3-12 Credit Hours)

An internship is a high impact learning experience where knowledge and theory from students' program of study are integrated with shadowing, volunteering, or paid employment with a private company, not-for-profit organization or government agency toward the intentional development of transferable knowledge, skills and abilities and practical application of professional competencies. The semester prior to the internship, Academic and Career Advising Center staff assist students with preparing their application materials and searching and applying for environmentally related internships within the local community, stateside or abroad, as well as in defining learning objectives, educational and career goals, and professional deliverables to be met throughout the course of training and practice. During the semester of the internship course, under the mentorship of a dedicated professional who has the education and/or background and expertise of the students' discipline of study, students immerse in a remote, hybrid or in-person professional setting. Through guidance, support and regular feedback from the mentor and internship course instructor, students strive to satisfactorily learn and practice their internship position and achieve their learning objectives. Students follow a course curriculum including: 40 contact hours at the host site per credit hour registered; participation in classes, meetings or workshops as scheduled by the course instructor; timely completion of homework assignments in support of student learning outcomes, professional readiness and career exploration; and end of semester evaluations. Internships culminate in a letter grade determined by the above criteria. Written pre-approval of the internship by the course instructor and Academic Director is required.

May be repeated for credit.

Academic Level: Undergraduate

Enrollment limited to students with the UG Internships attribute.

ENV 497 Independent Study (1-12 Credit Hours)

Academic Level: Undergraduate

ENV 499 Senior Capstone in Envtl Studi (3 Credit Hours)

Designed for and restricted to graduating seniors in the ENV Science, ENV Studies and Sustainability and Business majors, the Capstone Experience focuses upon specific environmental issues, questions, or perceptions of current significance in the general context of environmental sustainability. In order to achieve critical analysis of the topic from interdisciplinary perspectives, students will apply concepts and data gained from prior coursework in the department's disciplinary bases and especially in the department's four Distribution Groups. Primary and secondary research and seminar papers will provide the basis for informed discussion, culminating in a final paper or project.

Academic Level: Undergraduate

ENV 510 Master's Thesis Research (1-12 Credit Hours)

This course is for graduate students enrolled in the ENV 4+1 MS degree program who are conducting active research which will lead to the completion of a final project paper and oral presentations for graduation. This course is thereby designed to provide expert academic and stakeholder guidance to the student from the student's primary advisor, from committee members, and from collaborating researchers to assist in the progress of the student's research project efforts, and to help prepare students for their final oral presentation.

May be repeated for credit.

Academic Level: Graduate

Enrollment is limited to students with a program in Environmental Studies Scienc, Environmental Science 4+1 or Environmental Studies 4+1.

Enrollment is limited to Graduate level students.

ENV 511 Ecological Monitoring (3 Credit Hours)

Ecological monitoring provides important information about changes in the environment over time. Following a discussion of the principles and practice of ecological monitoring, students will learn about and participate in monitoring projects involving water quality, wetlands, forests and more. They will gain experience in sampling design, data collection and management, data analysis, interpretation, and communication of results. Students will apply their knowledge of ecological monitoring in a semester-long project where they develop a monitoring plan in collaboration with local stakeholders. Interactions with professionals in the field are an important part of this course.

Academic Level: Graduate

ENV 511L Ecological Monitoring Lab (1 Credit Hours)

In this field lab students will participate in one or more ecological monitoring projects in our local area. They will also analyze data using appropriate statistics and report findings in the scientific format.

Academic Level: Graduate

Corequisites: ENV 511

ENV 512 Wetland Conservation and Ecology (3 Credit Hours)

Overview of coastal and inland wetland ecosystems and issues related to the conservation of these important habitats. Lectures and discussions will begin with an exploration of wetland hydrology, soils and vegetation. Building on this knowledge, we will then focus on approaches to managing and protecting these habitats. Course will include visits to local sites and interactions with a variety of professionals working in wetland conservation.

Academic Level: Undergraduate

Corequisites: ENV 512L

ENV 512L Wetland Conservation and Ecology Lab (1 Credit Hours)

This lab includes field investigations of local freshwater and coastal wetland habitats, assessment of creation and restoration sites, analysis of field samples, data analysis and report writing.

Academic Level: Undergraduate

Corequisites: ENV 512

ENV 518 Advanced Field Methods in Avian Ecology and Conservation (4 Credit Hours)

This class leads to a deeper appreciation for the diversity of avian species that live in and migrate through southern Maine. Migration is the underlying theme of this class. We will explore migration strategies, including how birds physically migrate and what cues are used to do so, as well as their associated costs and benefits. We will compare these ideas to resident species who do not migrate, and try to better understand their choice to endure the harsher seasons of southern Maine.

Academic Level: Graduate

Corequisites: ENV 518L

Enrollment is limited to students with a major in Environmental Studies Scienc, Biological Sciences or Marine Sciences.

ENV 518L Advanced Field Methods in Avian Ecology and Conservation Lab

In this field-based lab students operate a fall migration bird banding station in the UNE 363-acre forest parcel. The students learn to extract birds from mist-nets, use guides to identify birds to species, sex and age, take morphological measurements, band, analyze data, and enhance their science writing.

Academic Level: Graduate

Corequisites: ENV 518

Enrollment is limited to students with a major in Environmental Studies Scienc, Biological Sciences or Marine Sciences.

ENV 519 Practicum in Field Ecology (1 Credit Hours)

This course allows students to develop field and lab skills that they were introduced to in other applicable courses. These skills will be refined to a level equal to what would be expected for professional field research and/or further graduate school research.

Academic Level: Graduate

Enrollment is limited to students with a major in Environmental Studies Scienc, Biological Sciences, Environmental Science 4+1, Environmental Studies 4+1 or Marine Sciences.

ENV 556 Terrestrial Wildlife (4 Credit Hours)

This course focuses on the ecology and conservation of terrestrial wildlife, particularly focusing on North American mammals and birds. We explore population dynamics, behavioral ecology and wildlife management and how these ecological concepts are affected by human habitat management. The field-based lab develops and refines natural history skills necessary to census and understand terrestrial wildlife populations in diverse habitat types found in southern Maine. This experience will incorporate application of skills learned in other graduate classes, including statistics and/or GIS. The field and analytical skills learned in this class will provide strong research skills necessary for employment or further graduate studies.

Academic Level: Graduate

Corequisites: ENV 556L

Enrollment is limited to students with a major in Environmental Studies Scienc, Biological Sciences, Environmental Science 4+1, Environmental Studies 4+1 or Marine Sciences.

Enrollment is limited to Graduate level students.

Enrollment limited to students with the ENV 4+1 Participant or GMAR/GBIO 4+1 Participant attributes.

ENV 556L Terrestrial Wildlife Lab

The field-based lab develops and refines natural history skills necessary to census and understand terrestrial wildlife populations in diverse habitat types found in southern Maine. Students will learn to process, analyze and present data at the professional level.

Academic Level: Graduate

Corequisites: ENV 556

Enrollment is limited to students with a major in Environmental Studies Scienc, Biological Sciences, Environmental Science 4+1, Environmental Studies 4+1 or Marine Sciences.

Enrollment is limited to Graduate level students.

Enrollment limited to students with the ENV 4+1 Participant or GMAR/GBIO 4+1 Participant attributes.

ENV 598 Topics/Environmental Studies (3 Credit Hours)

This course offers an in-depth study of a topic in the fields of environmental studies at the graduate level. Employing an interdisciplinary approach, the course builds upon prior knowledge and skills attained in undergraduate environmental courses. It may be taken more than once as the topic changes. Graduate standing, or permission of instructor, is required. Recent examples of course topics include: Disturbance Ecology and Management, Ecosystem Management, and Climate Change and Conservation.

May be repeated for credit.
Academic Level: Graduate