

WILDLIFE ECOLOGY AND CONSERVATION

Not all courses are offered every semester. Refer to the schedule of courses for each term's specific offerings.

More Info (<https://one.uf.edu/soc/>)

Unless otherwise indicated in the course description, all courses at the University of Florida are taught in English, with the exception of specific foreign language courses.

Department Information

The Department of Wildlife Ecology and Conservation fosters education, expands knowledge, and rewards scholarship. This is accomplished by using multidisciplinary approaches for the purpose of understanding, managing, and conserving biological resources.

Website (<https://wec.ifas.ufl.edu/>)

CONTACT

Email (WECAdiving@ifas.ufl.edu) | 352.846.0643 (tel) | 352.392.6984

P.O. Box 110430

110 NEWINS-ZIEGLER HALL

GAINESVILLE FL 32611-0430

Map (<http://campusmap.ufl.edu/#/index/0832>)

Curriculum

- Combination Degrees
- Wildlife Ecology and Conservation
- Wildlife Ecology and Conservation Minor

Courses

WIS 2040 Wildlife Issues in a Changing World 3 Credits

Grading Scheme: Letter Grade

An introduction to the biological and ecological basis of wildlife issues and the pathways humans use to resolve these issues throughout the world. Topics include: major animal phyla, evolutionary history of vertebrates, state, federal and international agencies that manage wildlife worldwide, impacts of human activities on wildlife. This course affords students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena.

Attributes: General Education - Biological Science

WIS 2323 The Future of Tropical Rain Forests 3 Credits

Grading Scheme: Letter Grade

This course investigates the essential question "What is the Future of Tropical Rain Forests?" Students will investigate fundamental issues addressed by scientists studying rain forests, including what gave rise to their biodiversity, the drivers and consequences of deforestation, cultural stereotypes, and if conservation is compatible with socioeconomic development.

Prerequisite: Any Quest 1 course with a minimum grade of C.

Attributes: Quest 2, General Education - International

WIS 2552 Biodiversity Conservation: Global Perspectives 3 Credits

Grading Scheme: Letter Grade

This course affords students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena through an introduction to the relationship between humans and the global biotic environment that supports them. This course explores human patterns of resource use and population biology determining the status of the earth's biodiversity resources. The goal of this course is to help students understand how today's human society affects global life support systems, and how individuals can make lifetime contributions to environmental solutions.

Attributes: General Education - Biological Science, General Education - International

WIS 2920 Wildlife Colloquium 1 Credit

Grading Scheme: Letter Grade

Wildlife ecology and conservation as a major and career.

Prerequisite: Wildlife Ecology and Conservation major or minor.

WIS 3401 Wildlife Ecology and Management 3 Credits

Grading Scheme: Letter Grade

Wildlife as a natural resource with emphasis on principles of conservation, ecology and management.

Prerequisite: BSC 2011 and BSC 2011L.

WIS 3402 Wildlife of Florida 3 Credits

Grading Scheme: Letter Grade

Diversity of wildlife species in Florida with emphasis on amphibians, reptiles, mammals, and birds.

Prerequisite: Sophomore standing or BSC 2011 or BSC 2011L.

WIS 3402L Wildlife of Florida Laboratory 1 Credit

Grading Scheme: Letter Grade

Laboratory exploring the diversity of wildlife in Florida's ecosystems with emphasis on field identification, natural history, and ecology of birds, mammals, amphibians, and reptiles.

Prerequisite: Sophomore standing or BSC 2011 or BSC 2011L.

WIS 3404 Natural Resource Ecology 3 Credits

Grading Scheme: Letter Grade

Application of ecological principles and natural history information to conserve and sustainably manage natural resources with an emphasis on animals and plants.

Prerequisite: BSC 2011 or equivalent.

WIS 3410 The Ecology of Climate Change 3 Credits

Grading Scheme: Letter Grade

Provide a broad overview of the ecological responses to climate change on the Earth. Students will learn about ecological processes, spanning genetics, physiology and behavior, morphology, phenology and distribution, and up through species interaction, communities and ecosystems and how climate change impacts them.

Prerequisite: BSC 2011.

WIS 3434 Tropical Wildlife 3 Credits

Grading Scheme: Letter Grade

An interdisciplinary course that teaches the ecology of animals and the socio-economics of wildlife use. The first part of the course deals with the biology of tropical wildlife and the second with the historical, economic and political aspects of the use and management of tropical wildlife.

Prerequisite: BSC 2011 and BSC 2011L and Wildlife Ecology and Conservation major of junior standing or higher.

WIS 3553C Introduction to Conservation Genetics 4 Credits

Grading Scheme: Letter Grade

Types of molecular polymorphisms found in nature, including how genetic information is organized, what evolutionary and demographic forces act to shape genetic polymorphisms, and how and why genetics are useful in population conservation and management.

Prerequisite: STA 2023 and (FOR 3153C or PCB 3601C or PCB 4043C or WIS 3404).

WIS 4203C Landscape Ecology and Conservation 3 Credits

Grading Scheme: Letter Grade

Central constructs and methods of landscape ecology are applied to wildlife ecology and conservation.

Prerequisite: STA 2023 and (FOR 3153 or PCB 3601C or PCB 4043C or WIS 3404) and (FOR 3434C or GIS 3043 or GIS 3072C or URP 4273).

WIS 4424 Large Mammal Ecology and Management 3 Credits

Grading Scheme: Letter Grade

Large mammals are fascinating creatures that interact with the coupled human and natural systems that they occupy in complex ways. Abiotic and biotic conditions as well as human impacts drive their dynamics, while they in turn play significant roles in shaping the diverse landscapes they inhabit. Take a critical approach to examining current advances and controversies involving large mammals.

Prerequisite: Junior or senior standing.

WIS 4427C Wildlife Habitat Management 3 Credits

Grading Scheme: Letter Grade

Application of land management practices and their effects on wildlife habitats in Florida.

Prerequisite: WIS 3401.

WIS 4440C Wetland Management 3 Credits

Grading Scheme: Letter Grade

Prepare students for basic monitoring, field research, and management of wetlands, using ecological principles and knowledge of community variation in relation to stressors. Identification, monitoring techniques, and management and restoration techniques will be taught through a combination of class lectures and hands-on field exercises and labs.

Prerequisite: BSC 2010 & BSC 2010L & BSC 2011 & BSC 2011L.

WIS 4443C Wetland Wildlife Ecology 4 Credits

Grading Scheme: Letter Grade

Ecological principles of conservation and management of wildlife in wetland environments, including a survey of the structure and function of major wetland types.

Prerequisite: WIS 3401.

WIS 4454 Ecology of Bird Introductions and Invasions 3 Credits**Grading Scheme:** Letter Grade

Ecology and conservation implications of introductions and invasions of birds. The course covers the invasion pathway model as well as the four levels of factors that can influence introduction outcomes.

Prerequisite: BSC 2010 and BSC 2011.**WIS 4501 Introduction to Wildlife Population Ecology 3 Credits****Grading Scheme:** Letter Grade

The dynamics and regulation of biological populations and life-history theory.

Prerequisite: PCB 3063 or AGR 3303 or WIS 3553C & WIS 3401 & FNR 3500C or PCB 3601C or PCB 4043C or WIS 3404.**WIS 4523 Human Dimensions of Natural Resource Conservation 3 Credits****Grading Scheme:** Letter Grade

Local and international models are used to provide an interdisciplinary overview of the theory and practice of conservation education, environmental communication and integrated resource management and conservation.

Prerequisite: WIS 3401 or WIS 4554.**WIS 4547C Avian Field Techniques 2 Credits****Grading Scheme:** Letter Grade

Intensive advanced field experience in scientific study design and ecology of wild bird populations and communities.

Prerequisite: 1 course each in ecology and vertebrate ecology.**WIS 4551 Diverse Perspectives in Conservation 3 Credits****Grading Scheme:** Letter Grade

As the population of the United States becomes increasingly diverse, the integration and participation of diverse communities is essential with respect to successful management and conservation of wildlife and natural resources. Examines current and historical factors that influence the interaction of marginalized communities such as indigenous and communities of color with the natural environment, including natural resource management decision-making structures.

Prerequisite: WIS 2### or greater.**WIS 4554 Conservation Biology 3 Credits****Grading Scheme:** Letter Grade

Overview of the major problems in conservation and of the biological principles and theories to preserve this diversity.

Prerequisite: (PCB 3063 or WIS 3553C) and (FOR 3153C or PCB 3601C or PCB 4043C or WIS 3404) and WIS 3401.**WIS 4570C Wildlife Behavior and Conservation 3 Credits****Grading Scheme:** Letter Grade

Concise, current, and thorough grounding to the field (theory, practice, and relevance) of animal behavior, with a strong focus on applications of wildlife behavior to achieve successful wildlife conservation gains.

Prerequisite: BSC 2010**Attributes:** Artificial Intelligence**WIS 4601C Quantitative Wildlife Ecology 3 Credits****Grading Scheme:** Letter Grade

Concepts and applications of quantitative techniques in ecology and wildlife management.

Prerequisite: STA 2023 and WIS 3401.**WIS 4900 Supervised Extension Experience in Wildlife Ecology and Conservation 0-3 Credits****Grading Scheme:** S/U

Firsthand, authentic extension experiences in agricultural and life sciences under the supervision of a faculty member. Projects may involve program planning, development, implementation, and evaluation.

Prerequisite: Instructor permission.**WIS 4905 Individual Problems 1-4 Credits****Grading Scheme:** Letter Grade

Individual study of a selected topic related to wildlife ecology and conservation as contracted with the instructor at the start of the term.

Prerequisite: instructor permission.**WIS 4911 Supervised Research in Wildlife Ecology and Conservation 0-3 Credits****Grading Scheme:** S/U

Provides firsthand, supervised research. Projects may involve inquiry, design, investigation, scholarship, discovery, or application.

Prerequisite: Instructor permission.**WIS 4915 Honors Thesis Research in Wildlife Ecology and Conservation 0-3 Credits****Grading Scheme:** S/U

Independent research in wildlife ecology and conservation leading to an honors thesis. Student will be mentored by a faculty member. Projects may involve inquiry, design, investigation, scholarship, discovery or application.

Prerequisite: junior standing, upper division GPA of 3.75 or higher and completed honors thesis proposal on file.

WIS 4934 Topics in Wildlife Ecology and Conservation 1-4 Credits

Grading Scheme: Letter Grade

Variable current issues and in-depth study in wildlife, forestry, range, recreation, and fisheries issues not covered in other courses.

Prerequisite: Instructor permission.

WIS 4941 Internship in Wildlife Ecology and Conservation 1-12 Credits

Grading Scheme: Letter Grade

Practical teaching, research, and extension experience in the field of wildlife ecology and conservation. Offered every semester.

Prerequisite: instructor permission.

WIS 4945 Wildlife Techniques 3 Credits

Grading Scheme: Letter Grade

Evaluate the theories, strengths, and weaknesses behind the use of standard wildlife techniques by researchers and managers. Major topics covered include study design, radio telemetry, passive monitoring techniques, animal capture and handling, sexing and aging wildlife, population estimation, and habitat selection.

Prerequisite: WIS 3402.

WIS 4945L Field Wildlife Techniques 1 Credit

Grading Scheme: Letter Grade

Students will examine and apply the wildlife techniques used by managers and researchers when working with wildlife. Major topics covered in the course include: animal capture and handling, sexing and aging wildlife, radio telemetry, population estimation methods, passive monitoring techniques, quantifying vegetation, and habitat usage.

Prerequisite: WIS 3402 & WIS 4945.WIS4945L
