

ZOOLOGY (ZOO)

ZOO 3205C - Invertebrate Zoology (3 Credits)

Course emphasizes concepts and unifying principles from phylogenetics, physiology, developmental biology, functional morphology, ecology, and paleontology while systematically surveying the major taxa of invertebrate animals. Laboratory intensive with field exercises.

Prerequisite(s): BSC 1010C and (BSC 1011C or (BSC 1011 and BSC 1011L))

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs, MRSE - Marine Sci Restrict Elec, SUSC - Sustainability Component

ZOO 3234C - General Parasitology (3 Credits)

Introduction to the diversity and natural history of major parasite groups using a conceptual approach. Students will be introduced to major concepts of parasitology, including the nature of parasitism, the ecology and evolution of parasites, and their impacts on natural systems and human societies.

Prerequisite(s): (BSC 1010C or (BSC 1010 and BSC 1010L)) and (BSC 1011C or (BSC 1011 and BSC 1011L))

ZOO 3464C - Field Herpetology of SWFL (3 Credits)

This course focuses on the origins and evolution, diversity, structural and functional adaptations, behavior and ecology of reptiles and amphibians with an emphasis on SW Florida's herpetofauna. The course will include field trips in every meeting.

Prerequisite(s): PCB 3043C

ZOO 3713C - Vertebrate Form and Function (3 Credits)

Major anatomical and physiological adaptations of the vertebrates are examined in evolutionary and ecological contexts using integrated lecture and laboratory exercises. The course will include the use of dissection and physiological laboratory techniques to study vertebrate form and function.

Prerequisite(s): ISC 1004C or BSC 1011C or (BSC 1011 and BSC 1011L)

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs, ENVE - Envir.Stud.Elect.Pathway, SUSC - Sustainability Component

ZOO 3733C - Human Anatomy (4 Credits)

Basic and functional human anatomical systems are studied with an emphasis on gross anatomy and form-function relationships of structures. Topics will include the integumentary, skeletal, muscular, nervous, circulatory, respiratory, digestive, urinary, and reproductive systems.

Prerequisite(s): (BSC 1010C or (BSC 1010 and BSC 1010L)) and (BSC 1011C or (BSC 1011 and BSC 1011L)) and (CHM 1045C or (CHM 1045 and CHM 1045L)) and (CHM 1046C or (CHM 1046 and CHM 1046L))

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs, SUSC - Sustainability Component

ZOO 4233C - Medical & Vet Parasitology (3 Credits)

The course introduces students to medical and veterinary parasites. Parasite taxa covered will include protozoa, helminths, arthropods, and their vectors and their relevance to a One Health World.

Prerequisite(s): MCB 3020C and ((BSC 1011 and BSC 1011L) or BSC 1011C)

ZOO 4272C - Ornithology (3 Credits)

This integrated lecture and lab course focuses on the origins and evolution, diversity, structural and functional adaptation, behavior, and ecology of birds, providing a global overview with an emphasis on Florida birds.

Prerequisite(s): BSC 1010C or (BSC 1010 and BSC 1010L)

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs, ENVE - Envir.Stud.Elect.Pathway

ZOO 4405 - Sea Turtle Biology (3 Credits)

This course provides an overview of sea turtle biology by highlighting their ecological role in the environment, adaptations to marine systems, and the different challenges facing their future.

Prerequisite(s): ((BSC 1010C or (BSC 1010 and BSC 1010L)) or (BSC 1011C or (BSC 1011 and BSC 1011L))) and PCB 3043C

ZOO 4422C - Herpetology (3 Credits)

This course will give students knowledge of the taxonomy, identification, physiology, behavior, and natural history of reptiles and amphibians. Field trips and research projects will provide advanced study of species found in south Florida.

Prerequisite(s): (BSC 1010C or (BSC 1010 and BSC 1010L)) and (BSC 1011C or (BSC 1011 and BSC 1011L))

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs, ENVE - Envir.Stud.Elect.Pathway, SUSC - Sustainability Component

ZOO 4454C - Ichthyology (3 Credits)

Tracks the rise and evolution of fishes and examines the adaptations in form and function that underlie their success. Emphasis will be placed on Southwest Florida fishes.

Prerequisite(s): BSC 1011C or (BSC 1011 and BSC 1011L)

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs, ENVE - Envir.Stud.Elect.Pathway, MRSE - Marine Sci Restrict Elec

ZOO 4480C - Mammalogy (3 Credits)

Integrated lecture and lab and focuses on the origins and evolution, diversity, structural and functional adaptations, behavior, and ecology of mammals. It presents a global overview with an emphasis on Florida mammals. Laboratory will emphasize, anatomy, behavior, identification, and ecology. Field trips will include zoo visits, studies of manatees and other Florida mammals, and an introduction to field research tools in mammalogy.

Prerequisite(s): (BSC 1010C or (BSC 1010 and BSC 1010L)) and (BSC 1011C or (BSC 1011 and BSC 1011L))

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs, ENVE - Envir.Stud.Elect.Pathway

ZOO 4513C - Animal Behavior (3 Credits)

This is an introduction to the study of Ethology, including the mechanisms, development, adaptations, and evolution of behavioral patterns.

Prerequisite(s): (BSC 1010C or (BSC 1010 and BSC 1010L)) and (BSC 1011C or (BSC 1011 and BSC 1011L))

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs, BTEL - Biotec Restricted Elect, SUSC - Sustainability Component

ZOO 4743C - Neuroscience (3 Credits)

In Neuroscience we will investigate the workings of human nervous systems. We will cover anatomy and physiology, neuropharmacology, and neurological correlates of behaviors such as sleep, emotions, hunger, and sex.

Prerequisite(s): (PCB 3703C or BSC 1086C) and (BSC 1010C or (BSC 1010 and BSC 1010L)) and (BSC 1011C or (BSC 1011 and BSC 1011L)) and (CHM 1046C or (CHM 1046 and CHM 1046L))

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs, SUSC - Sustainability Component

ZOO 4753C - Histology (3 Credits)

A microscopic study of animal tissue covering epithelium, muscle, nervous and connective tissues with an emphasis on the morphological differences in tissue organization both for structural and functional purposes.

Prerequisite(s): ZOO 3713C or BSC 1086C

Attribute(s): BIOE - Biology Elective, BPRO - BS Bio Pre-Pro Reqs, BTEL - Biotec Restricted Elect

ZOO 4823C - General Entomology (3 Credits)

This course examines insects from anatomy and physiology through their functions in the environment. Topics include insect behavior, reproduction, evolution, biodiversity, and human interactions.

Prerequisite(s): (BSC 1010C or (BSC 1010 and BSC 1010L)) and (BSC 1011C or (BSC 1011 and BSC 1011L)) and (CHM 1045C or (CHM 1045 and CHM 1045L))

ZOO 4894C - Fisheries Management (3 Credits)

Fisheries management of domestic and international marine commercial and recreational species and stocks with a view towards an ecosystem approach. An introduction to the regional fishery management councils governance process. An introduction to the Food and Agricultural Organization (FAO) of the United Nations to which the United States is a member for achieving sustainable science/policy of straddling stocks, among others.

Attribute(s): SUSC - Sustainability Component

ZOO 5759C - Advanced Histology (3 Credits)

Students will study the histology of the organs and organ systems of the human body as they operate individually and how they integrate together. Special attention is devoted to the histology of the body systems, including skeletal, muscular, cardiovascular, respiratory, neuromuscular, endocrine, digestive, renal and reproductive. The curriculum is inquiry based, fully integrated with lab activities and histology techniques, which emphasize active learning strategies and collaboration.

Prerequisite(s): BSC 6840

ZOO 6463C - Grad Field Herp of SWFL (3 Credits)

This course provides an opportunity for advanced study of the biology of reptiles and amphibians in an evolutionary context. The entire spectrum of reptile and amphibian diversity is studied from the first known fossil amphibians and their ancestors through all living and extinct clades. Anatomical, physiological, and behavioral biology are also examined from an evolutionary perspective; utilizing the principles of cladistic analysis, each system is examined from its most primitive condition to the many unique derived conditions found among living and/or fossil amphibians and reptiles. Current controversies may be featured, and topics span from molecular to organismal and ecological. The course will include the use of field and lab techniques to study various topics.

Prerequisite(s): PCB 3063C

ZOO 6475C - Graduate Ornithology (3 Credits)

This integrated lecture and lab course focuses on the origins and evolution, diversity, structural and functional adaptation, behavior, and ecology of birds, providing a global overview with an emphasis on Florida birds.

Prerequisite(s): PCB 3063C