

PRINCIPLES OF

Animal Science I



Course Objective

This course is designed to introduce students to basic animal classification, including vertebrates and invertebrates, animal domestication, basic animal anatomy and physiology, as well as basic animal husbandry with focus on exotic animals and local species. Students will receive practical training on animal handling and husbandry in this course.

Prerequisites

Grade of B or higher in Biology and Ecophysiology



Course Expectations

Students will practice animal husbandry and care for our classroom animals during the semester. In addition to the academic coursework students will be expected to complete a minimum of 20 volunteer hours, participate in the Exceptional Sidekick Service-Learning Project and showcase presentation. Students must demonstrate a solid foundation in biological sciences, and an ability to work both independently and collaboratively to take this course.

Units Covered during the course

Animal Science Introduction

- History and use of Animals
- Domestication
- Animal Handling and Safety
- Welfare and Safety



Animal Classification Systems

- Taxonomy/Dichotomous Keys
- Understanding Animal Classification



Vertebrates & Invertebrates

- Beekeeping/Entomology
- Ornithology
- Herpetology
- Mammalogy



Animal Anatomy and Physiology

- Fundamentals of Animal Physiology
- Body structure & homeostasis
- Metabolism & thermoregulation
- Skeletal system
- Reproductive system

PRINCIPLES OF

Animal Science II



Course Objective

This course is designed as the second course in the animal science series. The scope of this course includes an in-depth focus on animal nutrition, behavior, reproduction, disease and disease management. Students in this course will be able to provide care plans for managing groups of animals and troubleshoot illness, nutritional problems, and behavioral issues that may arise. Students must be comfortable handling animals and must have passed animal science 1.

Prerequisites

Grade of B in Animal Science I



Course Expectations

Students will practice animal husbandry and care for our classroom animals during the semester. In addition to the academic coursework students will be expected to complete a minimum of 25 volunteer hours, participate in the CT Humane Society Service-Learning Project and showcase presentation. Students must demonstrate a solid foundation in biological sciences, and an ability to work both independently and collaboratively to take this course.

Units Covered during the course

Animal Behavior

- Normal animal behaviors
- Stereotypic behaviors
- Recognition of abnormal behaviors, postures, or signs of illness
- Ethograms



Animal Nutrition

- Minerals, vitamins, and specific species requirements
- Common deficiencies and consequences of them, clinical signs

Animal Reproduction

- AI vs natural reproduction
- Breeding of classroom animals
- Asexual reproduction
- Sexual reproduction



Animal Diseases

- Common Diseases to monitor/prevent
- Zoonotic diseases
- Q-fever, Leptospirosis, influenza, giardia and other parasites (roundworms), Rabies, ringworm
- PPE training and isolation protocols





PRINCIPLES OF Animal Science III

ANIMALS IN CAPTIVITY AND ZOO MANAGEMENT

Course Objective

This course is designed as the third course in the Animal Science series. Students will be introduced to the physiology, behavior, nutrition, husbandry, and breeding of the major vertebrate taxa, with an emphasis on species maintained in the Zoological Facility on campus. Exotic animals, as well as local species, representing amphibians, reptiles, birds, and small mammals will be studied in depth. Students will receive practical training and experience in the daily care of the campus collection during the laboratory component of the course.

Prerequisites

Grade of B in Animal Science II



Course Expectations

Students will practice animal husbandry and care for our classroom animals during the semester. In addition to the academic coursework students will be expected to complete a minimum of 30 volunteer hour participate in the Connecticut's Beardsley Zoo Service-Learning Project and showcase presentation. Students must demonstrate a solid foundation in biological sciences, and an ability to work both independently and collaboratively to take this course.

Units Covered during the course

Introduction to Zoos

- History of zoos
- Importance of zoos
- AZA Requirements
- Animal Welfare



Conservation

- Endangered Species and related terms from the IUCN Red List
- In/Ex Situ Conservation/ SSP
- Species Survival Plan
- Breeding Programs



Exhibit Design

- Enclosure Requirements
- Visitor barriers and Animal Barriers
- Safety requirements



Animal Ethics

- Ethical issues that arise in human-animal relationships
- Companion animals
- Animal welfare and animal experimentation
- Controversies over zoo animals

