

BIOL A172: NATURE OF BIRDS

Item	Value
Curriculum Committee Approval Date	12/08/2021
Top Code	040700 - Zoology, General
Units	1 Total Units
Hours	36 Total Hours (Lecture Hours 9; Lab Hours 27)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

An introductory course to bird identification, their life, and their habitats. Emphasis will be on the physical characteristics of birds, how birds evolved, their classification, diet, behavior, reproduction strategies, flight mechanics, migration patterns, and characteristics of their natural habitat. There will be at least four field trips. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Correctly identify a bird using a field guide after describing the bird's characteristics using proper terms.
2. Discuss the importance of a healthy habitat for bird population with respect to resources required for survival and reproduction.

Course Objectives

- 1. Use a bird field guide to identify birds.
- 2. Describe a bird using the correct terminology.
- 3. Correlate the shape of a bird's beak and feet with the bird's diet.
- 4. Discuss the courtship and nesting behavior of local birds.
- 5. Describe the basic mechanism of bird flight.
- 6. Identify the four major bird migration routes in the United States.
- 7. Discuss the evolutionary relationship of birds.
- 8. Discuss a few adaptations birds have to live in their particular environment.

Lecture Content

1. Anatomy of a bird 2. Evolution of birds 3. Classification of local birds 4. Habitat diversity 5. Reproduction and Song 6. Diet and Behavior 7. Flight mechanics 8. Migration and Biogeography of local birds

Lab Content

Classroom lab activities use bird taxidermy specimens to learn about beak and feet adaptations use the microscope and models to understand feather parts and function Field activities Go to a variety of habitats to view different bird communities Use binoculars to sight birds Identify

birds using field guides Quantify birds and analyze the data for species richness and evenness

Method(s) of Instruction

- Lecture (02)
- Lab (04)

Instructional Techniques

Lecture and discussion in a classroom. Lab activities in a classroom and a minimum of four instructor-guided field trips to various locations known for bird diversity.

Reading Assignments

Assigned pages in the field guide to read about bird biology and to memorize characteristics of birds to be able to identify the birds in the field. Also, students will be given articles related to the topic of the week to read (1 hour per week)

Writing Assignments

Each student will submit a research report on an assigned bird detailing the natural history of the bird. Each student will maintain a field journal dictating their observations during each guided field trip and additional self-guided assigned trips. (1 hour per week)

Out-of-class Assignments

Each student will conduct research on a particular bird and its biology and ecology. A report and presentation will be constructed based on their findings. (1 hours per week)

Demonstration of Critical Thinking

Quizzes Research report on a local bird

Required Writing, Problem Solving, Skills Demonstration

Each student will submit a research report on an assigned bird detailing the natural history of the bird. Each student will maintain a field journal dictating their observations during each guided field trip and additional self-guided assigned trips.

Eligible Disciplines

Biological sciences: Master's degree in any biological science OR bachelor's degree in any biological science AND master's degree in biochemistry, biophysics, or marine science OR the equivalent. Master's degree required. Ecology: Master's degree in ecology or environmental studies OR the equivalent OR see interdisciplinary studies. Master's degree required.

Textbooks Resources

1. Required Sibley, D.A.. Sibley Birds West: Field Guide to Birds of Western North America, 2nd ed. Chicago: Knopf Publishing, 2016 Rationale: . 2. Required Peterson, R.T.. Peterson Field Guide to Birds of North America, 2nd ed. Boston: Mariner Books, 2020