COURSE OUTLINE : BIOL 145
D Credit – Degree Applicable
COURSE ID 005092
Cyclical Review: October 2021

COURSE DISCIPLINE : BIOL

COURSE NUMBER : 145

COURSE TITLE (FULL) : Biology Of Birds

COURSE TITLE (SHORT) : Biology Of Birds

ACADEMIC SENATE DISCIPLINE: Biological Science

CATALOG DESCRIPTION

BIOL145 is an introductory survey course dealing with the identification, classification, ecology, anatomy, physiology and behavior of birds. Course study emphasizes the natural history of local birds as well as representative bird groups from around the world.

Total Lecture Units:1.50

Total Laboratory Units: 0.50

Total Course Units: 2.00

Total Lecture Hours:27.00

Total Laboratory Hours: 27.00

Total Laboratory Hours To Be Arranged: 0.00

Total Contact Hours: 54.00

Total Out-of-Class Hours: 54.00

Prerequisite: None.

ENTRY STANDARDS

	Subject	Number	Title	Description	Include
1				N/A	Yes

EXIT STANDARDS

1 Identify common bird species in the field and in the lab;
2 Identify major characteristics and evolutionary history of various bird families;
3 Describe the unique aspects of avian anatomy, including skeletal, integumentary, respiratory, digestive, excretory and reproductive systems;
4 Describe the unique aspects of avian physiology, including oxygen assimilation and digestive efficiency;
5 Describe the behavior of major bird families, with a focus on feeding and reproductive behavior;
6 Describe the various roles of birds in the broader ecosystem, including symbiotic relationships and food webs.

STUDENT LEARNING OUTCOMES

1 Recognize representatives of the primary bird families and their characteristics.
2 Identify unique aspects of avian anatomy and physiology.

COURSE CONTENT WITH INSTRUCTIONAL HOURS

	Description	Lecture	Lab	Total Hours
1	Avian Diversity • Systems of classification • Survey of Avian families	3	6	9
2	Avian Anatomy • Skeletal system • Integumentary system • Respiratory system • Digestive system • Excretory system • Reproductive system	3	6	9
3	Avian Physiology • Nervous system and sensory organs • Digestive efficiency • Respiratory efficiency • Thermoregulation and countercurrent exchange	3	4	7
4	Reproductive Biology • Reproductive strategies • Nesting and clutch systems	4	2	6

5	Behavior • Vocalizations • Territory and home range • Courtship and mating behavior • Feeding	4	4	8
6	Avian Ecology • Energy flow • Limiting factors • Competition • Mutualism • Parasitism	5	5	10
7	Geography of Avian Families • Migrations • Introductions • Extinctions	5	0	5
				54

OUT OF CLASS ASSIGNMENTS

1 Prepare a field journal based on observations;
2 Read primary literature articles and prepare an oral presentation;
3 Review field guides to help identify and classify birds observed.

METHODS OF EVALUATION

1 Exams
2 Field journal
3 Oral presentation

METHODS OF INSTRUCTION

- [x] Lecture
- [x] Laboratory
- [ ] Studio
- [x] Discussion
- [x] Multimedia
- [ ] Tutorial
- [ ] Independent Study
- [x] Collaboratory Learning
- [ ] Demonstration

- [x] Field Activities (Trips)
- [ ] Guest Speakers
- [x] Presentations

TEXTBOOKS

Title	Type	Publisher	Edition	Medium	Author	IBSN	Date
National Geographic Field Guide to the Birds of North America		National Geographic	7	Print	Dunn, J.	978-1426218354	2017