

BIOL 362: Ornithology
Spring 2022; TuTh 11:30am–12:45pm ISC 137
Lab Th 8:30–11:25am ISC 105
4(3-3)

Course Objectives:

This course will survey the evolution, ecology, anatomy, physiology, and behavior of birds. The material is presented through lectures and accompanying labs, with supplemental field trips sometimes scheduled outside the regular class period.

Learning Outcomes:

- Understand the evolutionary history of birds and the factors influencing their continued evolution
- Analyze form-function relationships and recognize and explain examples of adaptation and constraint
- Develop observational skills and understanding their application to field science
- Be able to identify common birds of western New York

Instructors:

Dr. Sara H. Burch, ISC 358, burch@geneseo.edu

Office Hours:

Monday 9:30–11:30 AM and Wednesday 2:30–4:30 PM
Or by appointment

Required Textbooks:

- **The Cornell Lab of Ornithology Handbook of Bird Biology** 3rd Ed (2016). Lovette & Fitzpatrick, editors; ISBN: 1118291050
- **Field Guide of Your Choice.** We will go over options in the first lab; please do not purchase a field guide until after we discuss them.

Lecture Notes and Additional Lab Handouts:

Slides from the lectures will be placed on the course website 24 hours prior to class time. Additional handouts for labs will be placed on the course website at least 24 hours prior to the first lab day. You are responsible for printing out these handouts and bringing them to your lab section.

Assignments:

READINGS: The readings relating to each lecture are given in the schedule below. You should attempt to read through the sections given and study the figures and tables before each lecture.

TAXONOMY PRESENTATIONS: Three times during the semester you and a partner will be responsible for doing a short (10–15 minute) presentation on a taxonomic group of birds. Sign ups for groups and dates will take place during the first week of class. These presentations will take place at the end of the lecture period.

Grades:

Exams for the lecture portion of this course will include a midterm and a non-comprehensive final exam. Quizzes are designed to provide self-evaluation throughout the semester. There will be 4 quizzes given during the semester. Only 3 of these quizzes will count toward your grade, and 1 will be dropped. The lab is considered to be part of your entire grade for this course and makes up about 35% of your total points. Lab grades are determined by an atlas, worksheets for each on-campus lab, a field notebook for off-campus labs, and one group presentation.

Final Paper	100 pts	
Exams (2)	100 pts	(50 pts each)
Quizzes (3)	60 pts	(20 pts each)
Taxonomy Presentation (3)	60 pts	(20 pts each)
Labs (6)	30 pts	(5 pts each)
Field Notebook	50 pts	
Lab Atlas	50 pts	
<u>Group Presentation</u>	<u>50 pts</u>	
Total Points	500 pts	

The grading scale for this course is the following:

A: 93%–100%	A–: 90%–92%	B+: 87%–89%	B: 83%–86%
B–: 80%–82%	C+: 77%–79%	C: 73%–76%	C–: 70%–72%
D: 60%–69%	E: <59%		

Course Policies and Resources

Exam Excuse Policies

Make-up exams and quizzes will only be given in cases of extenuating circumstances (a direct and unavoidable conflict of an academic or professional nature). Vacations, weddings, and leaving early for holidays are not acceptable excuses for taking an exam early or late. If you can't make the scheduled exam date you must contact Dr. Burch at least **ONE WEEK PRIOR** to the exam time. In cases of severe illness, family affairs, or quarantine restrictions, please contact Dr. Burch as soon as you are able to schedule accommodations. Exam dates are final and will not be changed.

Attendance

Attendance is not a required part of your lecture grade. However, missing significant numbers of class days will impact your ability to keep up with the lecture material. Attendance is required for lab worksheet grades. In general, the excuse policy for exams above also applies to absences for the purposes lab. If in doubt, contact Dr. Burch.

Academic Dishonesty

Academic dishonesty includes cheating, knowingly providing false information, plagiarizing, and any other form of academic misrepresentation. In this course, consequences of a first offense are a zero (0) on the relevant assignment or exam. Consequences of a second offense are a failing grade (E) overall in the course. For the college's fully policy, see: <https://www.geneseo.edu/handbook/academic-dishonesty-policy>

Academic & Personal Support Resources

The stresses we are all still under related to the pandemic can mean you may find yourself overwhelmed at various points in the semester. I want you all to have the best chance of succeeding in this course and in your college career, so if you feel like you are struggling, I urge you to seek assistance. Please see the Canvas page titled "Academic & Personal Support Resources" (linked on the front page) for a complete list of resources to help.

Accommodations:

SUNY Geneseo is dedicated to providing an equitable and inclusive educational experience for all students. The Office of Accessibility will coordinate reasonable accommodations for persons with physical, emotional, or cognitive disabilities to ensure equal access to academic programs, activities, and services at Geneseo. Students with letters of accommodation should submit a letter to each faculty member and discuss their needs at the beginning of each semester. Please contact the Office of Accessibility Services for questions related to access and accommodations. Office of Accessibility Services in Erwin Hall 22 or access@geneseo.edu or 585-245-5112.

Land Acknowledgment

Land acknowledgements are expressions of sorrow and remembrance to those whose historic territory one resides on. Geneseo resides on the homeland of the Seneca Nation of Indians and Tonawanda Seneca Nation. I encourage you to learn more about these original occupants and those indigenous to other places you have lived. You may consider using the Native Land app and/or websites such as sni.org to learn more about the community of more than 7,000 enrolled Indigenous Peoples.

Lecture Schedule

DATE		TOPIC	READING (HBB)
Jan	27 Th	Introduction – Why Study Birds?	Chapter 1
Feb	1 Tu	Classification & Phylogeny	Chapter 2
	3 Th	Origin of Birds	Chapter 2
	8 Tu	Speciation & Diversification	Chapter 3
	10 Th	Bird Anatomy	Chapter 6

DATE		TOPIC	READING (HBB)
	15 Tu	Bird Anatomy [QUIZ]	Chapter 6
	17 Th	Feathers and Plumage	Chapter 4
	22 Tu	Feathers and Plumage	Chapter 4
	24 Th	Flight	Chapter 5
Mar	1 Tu	Flight [QUIZ]	Chapter 5
	3 Th	Physiology	Chapter 7
	8 Tu	Physiology	Chapter 7
	10 Th	EXAM 1	
	15 Tu	NO CLASS – SPRING BREAK	
	17 Th	NO CLASS – SPRING BREAK	
	22 Tu	Food & Foraging	Chapter 8
	24 Th	Food & Foraging	Chapter 8
	29 Tu	Mating & Social Behavior	Chapter 9
	31 Th	Mating & Social Behavior	Chapter 9
Apr	5 Tu	Vocal Behavior [QUIZ]	Chapter 10
	7 Th	Vocal Behavior	Chapter 10
	12 Tu	Breeding Biology	Chapter 11
	14 Th	Breeding Biology	Chapter 11
	19 Tu	Migration & Dispersal [QUIZ]	Chapter 12
	21 Th	NO CLASS – GREAT DAY	Chapter 12
	26 Tu	Migration & Dispersal	Chapter 13
	28 Th	Population Ecology	Chapter 14
May	3 Tu	Community Ecology	Chapter 14
	5 Th	Community Ecology	Chapter 14
	10 Tu	Conservation	Chapter 15
	12 Th	Braddock Bay Bird Observatory Field Trip	
	19 Th	FINAL EXAM: 9:00–10:30am	

Ornithology Lab Information

Required Materials

- **Field Guide of Your Choice.** We will go over options in the first lab; please do not purchase a field guide until after we discuss them.
- **Binoculars.** Purchase or borrow binoculars, or you may borrow a pair for observation days from the SUNY Geneseo Biology Department.

Assignments:

The labs for this course will be divided between on-campus labs and off-campus field trips. Most field trips will occur during our scheduled lab time, but one (May 12, Braddock Bay Bird Observatory) will take most of the day. On-campus labs will each have a worksheet to complete; for off campus labs, you will be responsible for keeping a field notebook. How to keep a field notebook will be discussed in lab.

Lab Schedule

DATES	LAB	TOPIC
January 27	1	Introduction to Field Identification
February 3	2	Bird Diversity & Phylogenetics
February 10	3	External Anatomy & Topography
February 17	4	Skeletal Anatomy
February 24	5	Conesus Lake Field Trip
March 3	6	Soft Tissue Anatomy
March 10	7	In-Lab Atlas Work Time
March 17		NO LAB – SPRING BREAK
March 24	8	Arboretum / Feeder Survey
March 31	9	eBird Data Analysis
April 7	10	Letchworth Park Field Trip
April 14	11	Bird Songs
April 21		NO LAB – GREAT DAY
April 28	12	Genesee Valley Conservancy Field Trip
May 5	13	Group Presentations
May 12	14	Braddock Bay Bird Observatory Field Trip