

Ornithology

11:216:323, Spring 2016

Lecture: Monday and Wednesday, 2:15 - 3:35pm, CDL 109

Lab: Wednesday, Thursday, or Friday, ≤9:15am - 12:15pm, Bartlett 12 or field trip

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Learning Goals: 1) deepen understanding of biology through the scientific study of birds; 2) interpret and understand the significance of evolutionary relationships among birds; 3) understand the scientific process in ornithology including the interpretation of graphs and experiments; 4) develop competency in field identification of birds.

Schedule

Date	Week	Lecture	Readings	Lab
Jan 20	1	Introduction	None	No lab
Jan 25	2	Diversity & evolution I	Ch 1, online article	Bird ID basics, waterbirds
Jan 27		Diversity & evolution II	Ch 2, online article	
Feb 1	3	Feathers	Ch 4, online article	Bird dissection
Feb 3		Flight	Ch 5	
Feb 8	4	Physiology	Ch 6	FIELD TRIP: Shark River Estuary (7:00AM)
Feb 10		Brain & senses	Ch 7, online article	
Feb 15	5	Exam I		Anatomy quiz, Land birds
Feb 17		Class project	Online article	
Feb 22	6	Vocal communication	Ch 8	FIELD TRIP: Raptor Trust, Great Swamp
Feb 24		Annual cycles	Ch 9	
Feb 29	7	Migration	Ch 10	Specimens review
March 2		Social behavior	Ch 11	
March 7	8	Mate choice	Ch 12	Lab midterm (specimens)
March 9		Exam II		
March 14-16	9	Spring break	No class	No class
Mar 21	10	Breeding systems, sex	Ch 13, 14	FIELD TRIP: Davidson's Mill Pond (8:00am)
Mar 23		Nests	Ch 15	
Mar 28	11	Parental care	Ch 16	FIELD TRIP: Helyar Woods (8:00AM)
Mar 30		Alometry	Online article	
April 4	12	Life history strategies	Ch 17	FIELD TRIP: HMF (8:00AM)
April 6		Populations	Ch 18	
April 11	13	Exam III		Neotropical migrants
April 13		Community Ecology	Ch 20	
April 18	14	Birds and people	Online article	FIELD TRIP: Sandy Hook (7:00AM)
April 20		Conservation I	Ch 21	
April 25	15	Conservation II	Online article	FIELD TRIP (LAB FINAL): Location TBA
April 27		Class project recap		
May 2	16	Review / make-up		No lab
TBD		Final Exam		

Grading:

A 90 to 100%, B+ 87 to 89, B 80 to 86, C+ 77 to 79, C 70 to 76, D 60 to 69, F < 60

Lecture (70% of total)	Lab (30% of total)
Exam 1: 13%	Anatomy quiz: 5%
Exam 2: 13%	Midterm: 10%
Exam 3: 13%	Final: 10%
Final: 16%	Participation: 5%
Quizzes*: 10%	
Class project**: 5%	

*six random quizzes based on readings for that day plus the previous lecture; lowest score dropped.

**a joint class project to be described in class; grade will depend on participation.

Important notes for labs and field trips: Attendance is mandatory to both lab and field trips. Two or more unexcused absences will result in failure of the course.

Labs: Labs start at 9:15am and are held in Bartlett Hall, room 12. No food or beverage is allowed.

Field trips: Vans depart promptly from ENR parking lot at 8:00am for local trips and 7:00am for longer trips (see schedule). For 7:00am trips, we will arrange earlier pickup at other campuses for those cannot make it to Cook due to the bus schedule. Bring a field notebook and take notes. The information from labs may appear on tests. You must dress for the weather! This means very warm clothing as it is usually much colder than you expect it to be! We will be hiking over uneven, soggy, and/or sandy terrain so good water-resistant footwear is required (no open-toed shoes). Sun protection, snacks, water, and bug spray may be needed. Coming extraordinarily unprepared for the weather may be counted as an absence. In extreme weather, we will email you to cancel the trip and switch to an indoor lab. If the weather is questionable but no announcement was sent, we will meet at the ENR parking lot at the arranged field trip time and decide then.

Required texts:

Ornithology 3rd edition (Frank Gill)

The Sibley Field Guide to Birds of Eastern North America (David Allen Sibley)

Online resources:

Many good tutorials on all aspects of bird biology: <http://academy.allaboutbirds.org/>

Very helpful lecture notes: <http://people.eku.edu/ritchisong/ornitholsyl.htm>

Crowd-sourced bird songs from around the world. www.xeno-canto.org

Species, habitat, and conservation info for birds worldwide. www.birdlife.org

Academic integrity:

All work must be your own. Cheating will not be tolerated and will result in a grade of zero. Consult <http://academicintegrity.rutgers.edu/> for details.