



BIOLOGY 476/476L — Spring 2020 AVIAN BIOLOGY WITH LABORATORY

MEETING TIME AND LOCATION

Lecture: 2:30-5:30 p.m. Mondays in Wilson 217

Lab: 1:30-4:30 p.m. Fridays in Wilson 218

- Mondays will include 3 class hours of lectures (with a break or two).
 - Friday afternoons are reserved for lab, but we will actually only have 3 labs during this time.
 - Most labs will consist of weekend field trips. **If you do not expect to be able to attend these labs, then please do not register. (See field trip schedule on the last page)**
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TEXTS

Gill FB. 2019. Ornithology. 4th Ed. Freeman (New York).

Peterson, RT. 2010. Peterson Field Guide to Birds of Eastern and Central North America.

COURSE AIMS

This course focuses on avian evolution, anatomy, physiology, neurobiology, behavior, biogeography, and ecology. It also involves field identification of North Carolina birds.

Students must enroll in the **lectures and labs concurrently**.

In addition to having a greater understanding of various facets of avian biology, by the end of the semester students will have learned to identify many of the birds commonly seen in North Carolina.

WEEKEND FIELD TRIPS

This course offers eight field trips:

- three Friday afternoon trips;
- three trips early on Sunday mornings to locations nearby;
- one week-end trip to the Outer Banks in early February; and
- one overnight trip to the southeastern coast in April.

For local trips, we usually leave early and return by noon. We will spend many hours outdoors on these field trips. Come prepared for cold, wind, and rain and for brambles, poison ivy, and rough hiking.

On our week-end trip in early February we will leave Friday afternoon and return Sunday evening.

On our coast trip in April we will leave Friday afternoon and return Saturday evening.

The Biology Department will provide the vehicles for these trips. We also have binoculars for everybody. For overnight trips, the costs of rooms and most meals are shared by all participants (~\$70 per person for the Outer Banks trip, ~\$30 per person for Beaufort/Croatan).

GRADING

You will receive a single combined grade (that will be listed twice on your transcript, once for 476 and once for 476L) based on the following elements:

- Midterm Exam, 17%
- Bird ID Quizzes, 17%
- Field Trip Reports, 17%
- Research Paper, 17%
- Final Exam, 17%
- Presentation, 5%
- Participation, 10%

WRITING

As part of this course, you will conduct writing assignments that exceed the 10 total pages needed to meet the Experiential Education requirement. This includes one 5-page primer paper that summarizes the contributions of a research study you choose, and twelve 1-page field trip reports.

LECTURE, LAB, AND FIELD TRIP SCHEDULE -- *TENTATIVE!*

For field trips, meet behind Wilson Hall. *We leave on time!*



AVIAN BIOLOGY

BIOL 476 2020 SPRING DR AH HURLBERT AND DR KW SOCKMAN

DATE	LECTURE TOPIC, EXAMS, PAPER AND WEEKEND FIELD/LAB DETAILS	LECTURE READING*
Fri, Jan 10	1:25 - 4:25 PM (In-class lab and campus walk)	
Mon, Jan 13	Introduction / Origin, Evolution, Guest Lecture by Alan Feduccia	2
Fri, Jan 17	1:25 - 4:25 PM, Museum of Natural Sciences	
Mon, Jan 20	UNC Holiday	
Sun, Jan 26	8:00 -11:00 AM, Mason Farm	
Mon, Jan 27	Form and Function, Guest Lecture by Ty Hedrick	4,5,6
Sun, Feb 02	8:00-11:00 AM, Jordan Lake	
Mon, Feb 03	Photoperiodism and Integration of Environmental Cues in Seasonal Reproduction	9, Sakai
Fri, Feb 07	Friday, 1:25 PM -- Sunday, 8:00 PM, Outer Banks; 5 labs	
Mon, Feb 10	Sex, Laying, Incubation, Family Planning, Life Histories Part 1	12,15, Sakai
Mon, Feb 17	Sex, Laying, Incubation, Family Planning, Life Histories Part 2	16,17, Sakai
Mon, Feb 24	Brood Parasitism / Social Behavior and Territoriality	14 (14.4), 11
Fri, Feb 28	1:25 - 2:55 PM, Midterm Exam	
Mon, Mar 02	Guest Lecture by Prof. Haven Wiley	
Fri, Mar 06	Approval Due for Primer Focal Paper	
Mon, Mar 09	Spring Break	
Mon, Mar 16	Song Learning and Production	8, Sakai
Fri, Mar 20	1:30-4:25 PM, In-class lab	
Mon, Mar 23	Song System Neurobiology / Song Perception	Sakai
Sun, Mar 29	1st Draft of Primer Due in Sakai Dropbox by 1:00 PM	
Mon, Mar 30	Migration and Orientation / Primer Paper Discussion	10, Sakai
Sun, Apr 05	7:00-10:30 AM, Stage Coach Road	
Mon, Apr 06	Primer Due Beginning of Class / Visual and Auditory Systems of Barn Owl / Avian Cognition	Sakai
Mon, Apr 13	Distribution and Biogeography / Population and Community Ecology / Conservation	Sakai, 1(1.5), 18, 20-21
Fri, Apr 17	Friday 1:25 PM - Saturday 8:00 PM, Croatan NF, Cedar Point, Bird Shoal; 3 labs	
Mon, Apr 20	Presentations	
Tue, May 05	Final at 8:00 a.m.	

*Chapter from Gill's Ornithology Text and/or Posted on Sakai