

Spring 2020 BIOL-5560-UT1 Syllabus

Biol5560OrnithologySpring2020.pdf (<https://usu.instructure.com/courses/581060/files/76572272/download?verifier=CahDG4eOnEfYDif2NxHzOsxpzF7gnqPCKv42KLZZ&wrap=1>)

BIOL 5560

Ornithology

Spring 2020

W 16:00-18:20, F 13:00-15:20

Instructor: Dr. Becky Williams

Office: BEERC 221B

Email: toxwilliams@gmail.com (<mailto:beckyw@berkeley.edu>)

Office

Hours: 13:00-14:00 Tue **or by appointment**

Text, Field Guides, and Course Fee:

Required: Scott, Essential Ornithology, 1st ed, 2010, ISBN 978-0198569978

AND at least *one* field guide, for example:

Sibley, The Sibley Field Guide to Birds of Western North America, 2nd ed., 2014,

ISBN 978-0307957900

OR

The Stokes Field Guide to the Birds of North America, 2010, Little, Brown and Company ISBN 978-0316010504

You may also be interested in a birding app for your phone. There are several; I prefer iBird Pro. You should also sign up for ebird.

Course Fee: \$50

Website: Many course materials will be available on Canvas. You may login with your A number and password.

<https://canvas.usu.edu/>

Catalog Description: Surveys evolution, systematics, physiology, anatomy, ecology, behavior, and identification of birds. Includes lectures, laboratory, and field exercises, field trips, and an independent project. Attendance is required at two Saturday field trips. Prerequisite/Restriction: BIOL 1620 and 1625.

Main Objectives:

- 1. You will acquire an understanding of the basic mechanisms (facts and concepts) of ornithology.**

Specific strategies: Learn the terminology and facts/knowledge of the field, including taxonomy, phylogenetic relationships, and identification. You will learn general principles as well, and apply these facts and concepts to new problems (quizzes, labs, exams, field trips)

- 2. You will develop critical thinking skills in order to make informed decisions within the field of ornithology and beyond.**

Specific strategies: Review and interpret primary literature in the field, engage in discussion about current hot topics in the field, be able to predict or recommend actions to solve previously unfamiliar problems (discussions, research project)

3. You will improve your written and oral communication skills.

Specific strategies: Review and interpret primary literature in the field, engage in discussion about current hot topics in the field, and produce a written report and oral presentation of your research (discussions, research project)

This is a 3-credit course with a lab, which represents 9 hours of work per week; per University guidelines, you should expect 4.5 hours of contact time (in class) and 4.5 additional hours of study time per week **on average** to learn the material and complete assignments. You may require additional time. Please plan for this in your schedule.

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Important Information:

Emergencies and important life events sometimes happen at inconvenient times. In order to accommodate these events, you are allowed to drop one midterm test score and I typically provide one extra quiz and one extra discussion to cover that contingency. In other words, accommodations for emergencies and family obligations, etc., are already built into the class and no further accommodations will be made. This policy allows us all to schedule our time and meet obligations within and outside of this course.

Overall performance is highly correlated with attendance. Participation is part of your grade because collaborative work is a valuable learning experience. Discussions, labs, and activities are designed to help you practice “thinking on your feet” and require feedback from your peers in a collaborative real-time activity and thus cannot be replicated by attempting to answer discussion questions or replicate activities on your own. Discussions and activities may be unannounced; please attend every class. If you *must* miss something, please make sure you do all the readings, study the powerpoints, go through any available lab materials on your own, and ask your fellow classmates for notes as well as instructions that might have been relayed during classtime. Please note that if you still do not understand something, I am available during office hours and by appointment if you cannot make office hours. **Also feel free to stop by unannounced!**

Because assignments build on each other and often require timely input from myself and your fellow students, **no late work** can be accepted. This policy as well as the number and type of assignments or activities and their due dates are arranged for your maximum learning benefit based on published research about how students learn. Additionally, prompt formative assessment is critical to learning; thus, keys will be released as soon as an assignment is due or an exam closes and provided to you as a learning aid. Thus, assignments cannot be turned in late and there are no make-up exams. I will give you the “tools” and “map” to attain the skills you need to be successful in your career. Your job is to use these resources to become a self-directed learner in order to maximize your learning in this class and therefore, your future career success.

Note: You and your fellow classmates paid for the privilege of attending this course. You all have a right to a productive learning environment. Previous studies have demonstrated that off-topic use of cell phones and laptops lowers your performance by a full grade and lowers the performance of your classmates, who are not in control of your distraction, two full grade levels. Turn off cell phones before class and plan to engage yourself in the course as a productive team-member. Thanks!

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Exam format: **All exams will be comprehensive.** Questions may be multiple choice, fill-in-the blank, short answer, or short essay. No outside aids are permitted including paper or electronic resources, i.e., no notes, texts, programmable calculators, cell phones, etc. **There will be no make-up exams.** You have 3 days in the testing center for each exam; please schedule your exam early. Your lowest midterm exam score will be dropped. If you miss an exam for any reason, that exam score will be dropped.

Quizzes: Graded quizzes will be available on Canvas before the material is covered in lecture. This encourages you to complete the assigned readings before lecture. Reiteration of material in different formats is a critical component of learning (for example, by reading, then a quiz, followed by lecture, and then discussion). There will be 9 quizzes worth 5 pts each. Quizzes help you prepare for lecture and the key will be released immediately after the due date; thus, quizzes cannot be taken late or retaken. I will provide one makeup quiz on additional material near the end of the semester to help you recover any points you missed.

Independent Research Project: You will conceive, design, gather and analyze data, write-up, and present an independent research project of your choosing (worth 50 points). Due dates of each step are given in the schedule below to ensure you receive critical feedback at each step, have time to incorporate revisions, and complete the project in a timely manner. Some of these steps require input from myself and later from your peers in class, thus if you fall behind you will be unable to makeup steps that you missed. The schedule is given ahead of time and designed entirely for your benefit; please plan ahead.

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Study Tips: Acquiring the knowledge, skills, and abilities taught in this course requires an effective study strategy. USU's Academic Success Center has materials and tips to help you learn how to learn (www.usu.edu/asc (<http://www.usu.edu/arc>)).

1. Complete reading assignments before class lectures and take notes for the quiz.
2. Access the powerpoints before class and bring them with you to facilitate note-taking.
3. Review the material at least once a week and preferably more often; do not wait until the night before the exam.
4. Try to draw diagrams and phylogenies from lecture and the book from memory.
5. Make concept maps rather than flashcards of important terms.
6. Have a friend quiz you on the material and form a study group.
7. Ask questions of the instructor and your classmates whenever something is unclear. Don't worry about interrupting!
8. Question the information you obtain in class or during your readings: *Is it logical? What are the implications? What other questions arise after considering the topic?*

Americans with Disabilities Act: I am happy to accommodate all persons with disabilities according to the recommendations of the Disability Resource Center (DRC) to facilitate maximum participation in the course. If you need accommodation, you must contact me **at least one week prior** to the requested accommodation and you must document the disability through the DRC (797-2444) as per university policy, preferably during the first week of class.

Academic Integrity and Misconduct: The purpose of this course is to learn the material and acquire skills such as critical thinking, such that you are prepared for the workforce, not to "get a good grade." Your degree program is designed to help you acquire the applicable knowledge, skills, and abilities to help you succeed in your chosen career. If you work towards these goals, a good grade will follow. Accordingly, cheating of any sort will not be tolerated. Plagiarism is a form of cheating. All assignments must be **in your own words**: do not quote or copy any passages from fellow students, written sources (including the text or articles), or any other source (such as online). "Minor" offenses, such as copying a partial sentence from the text, will follow a three strikes plan: strike one = you lose 50% of the grade for that assignment, strike 2 = you lose all points for that assignment, strike three = **you fail the course**. "Major" offenses, such as copying multiple sentences, copying any length of material from a fellow student, or cheating in any form on an exam will not be tolerated even once and such infractions will result in you

failing the course and possibly being expelled from the university. The instructor reserves the sole right to determine whether offenses are “minor” or “major.” Full university policies regarding student conduct may be found in the student code: <http://www.usu.edu/studentservices/studentcode/>
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Grading:

Midterm Exams (3)	100 pts (50 pts ea/one dropped)
Final Exam	50 pts
Lab Practicals (2)	50 pts (25 pts ea)
Research Project	50 pts (10 prop, 10 M&M/results (stats), 10 draft, 20 final)
Oral Presentation	25 pts
Field Trips (2)	50 pts (25 pts ea)
Lab Worksheets (15)	75 pts (5 pts ea)
Discussions (11)	55 pts
Quizzes (9)	45 pts (5 pts ea)
Total	500

The following is a breakdown of grade assignments.

<u>Grade</u>	<u>% of Total Pts</u>
A	93% and above
A-	90–92%
B+	86–89%
B	83–85%
B-	80–82%
C+	76–79%
C	73–75%
C-	70–72%
D+	66–69%
D	60–65%
F	59% and below

Please confirm that your scores are added correctly. Any disputes must be brought to my attention within one week of the assignment being returned in class or via Canvas.

Our Learning Environment: I would like to create a learning environment for you that supports a diversity of thoughts, perspectives and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, etc.). I ask that you please be respectful of others and help me promote a positive team-based experience for

you and your classmates. Please let me know if there is anything else I can do to make our classroom a positive learning environment conducive to personal and intellectual growth.

Tentative Schedule of Topics

BIOL 5560 Ornithology

Spring 2020

Date	Topic	Readings (Scott)	Lab
Jan 8	Intro Diversity		Diversity & ID Tools
Jan 10	Evolution & Systematics		Phylogenetics
Jan 15	Evolution & Systematics	1	Phylogenetics
Jan 17	Evolution of Birds, Paleontology		Big Phylogeny
Jan 22	Evolution of Birds, Paleontology	Hackett & 2008, Jarvis & 2014 (Canvas)	Modern Bird Orders
Jan 24	Diversity: Speciation		ID I
Jan 29	Diversity: Biogeography		Question & Answer
Jan 31	Exam # 1 (50 pts)		
Feb 5	Feathers	2	ID II
Feb 7	Flight, Physiology		Skeletal Anatomy
Feb 12	Physiology		Internal Anatomy
Feb 14	Statistics	Stats 4 Terrified Biologists (Canvas)	Experimental Design & Statistics
Feb 19	Senses, Brains, & Intelligence Proposal & 10 Citations Due Feb 19		ID III
Feb 21*	Migration & Navigation	3	*lecture online
Feb 26	Migration & Navigation		Lab Practical (25 pts)
Feb 28	Exam # 2 (50 pts)		
Mar 4	Spring Break - No Class		
Mar 6	Spring Break - No Class		
Mar 11	Foraging and Behavioral Ecology	6	ID IV
Mar 13	Vocalizations		ID V
Mar 18	Mates & Breeding Systems Raw Data Due March 18		Statistics Workshop
Mar 20	Reproduction	5	Statistics Workshop
Mar 25	Nests & Incubation Data Summary Due March 25	4	Question & Answer
Mar 27	Exam # 3 (50 points)		
Apr 1	Parental Care		Scientific Writing Workshop
Apr 3	Life History		ID VI
Apr 8	Populations Project First Draft Due April 8		ID VII
Apr 10	Communities	7	Scavenger Hunt
Apr 15	Oral Presentations Apr 15		Documentary Night
Apr 17	Conservation & Management Project Final Draft Due Apr 17		Question & Answer

Apr 24th **FINAL Exam and Lab Practical 13:00-15:20 (1:30-3:20 pm)** (50 points)