

BIOL 4403 - Ornithology Spring 2023 Syllabus

INSTRUCTOR AND COURSE DESCRIPTION

Instructor: Dr. Thornton R. Larson

Office Hours: MWF 11AM-1230 PM; or by appointment

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Lectures: MW 930AM-1045AM WSB 107

Laboratory: M 4-550 PM (Alpine campus only)

Course Description

This course will require 16 weeks of work. It consists of several fantastic discussions on birds and their evolution, morphology, and behavior. The time commitment is expected to be around 6 hours per week outside of class for study and individual projects. Each unit is associated with readings from the textbook, a few online videos, and some exercises to rehearse the knowledge taken in. This course strongly follows the textbook and is ordered by current taxonomic understanding. By approaching the material in this way, each unit from week to week will contain many similarities, building on your learned knowledge.

Birds are one of the most popular animals that lay-people have a fascination with. For Thousands of years humans have been mesmerized by flight, plumage, and egg-laying. Texas has more bird species that make it a permanent home, or just migrate through than any other state. As such some labs will incorporate field outings to gain appreciation of the diversity of birds in the Trans Pecos region of Texas. This course aims equip students with the knowledge of worldwide Orders and Families of birds, as well as the local species. Several field trips directly associated with the lab portion will be required for the course.

Lab will primarily consist of a general overview on major taxonomic groups of birds with a specific focus on those that can be found within the Big Bend region. We will also cover primary forms and functions unique to birds. Students will be expected to understand the unique features of birds as well as identification of birds at the Class, Order, Family, Genus, and species names for the majority of the material

Required Materials

Gill, F.B., R.O. Prum, and S.K. Robinson. 2019. *Ornithology* (4th ed.)

Optional Materials

Field Guide to birds: Dunn, J.L., and J. Alderfer. 2017. *National Geographic Field Guide to the Birds of North America* (7th ed.). **Good alternative field guide:** *The Sibley Field Guide to Birds of North America* (get the 2nd printing of 2nd ed.)

Exams and Grading

- 4 lecture exams (each 13.75% of total grade) 55%
- 5 Lecture Assignments (each 2% of total grade) 10%
- 2 Lab Practicals (Each 10% of total grade) 20%
- Lab Bird Song Quiz (5% of total grade) 5%
- Lab Presentation (5% of total grade) 5%
- Lab Bird Field Identification Journal (5% of total grade) 5%

A 90 – 100% B 80 – 89% C 70 – 79% D 60 – 69% F <60%

COURSE OBJECTIVES, LEARNING OUTCOMES, MARKETABLE SKILLS, POLICIES, AND UNIVERSITY SERVICES

Course Objectives: At the end of the semester, students will:

1. Sight-recognize the Birds of the Trans Pecos and know the habitat and range for which they would be encountered.
2. Know the families of North American Avian Fauna.
3. Know the orders of Birds.
4. Be able to use morphological features to identify and classify living and preserved Birds.
5. Understand and compare different reproductive strategies of Birds.
6. Use a standard field guide to identify Birds.
7. Utilize databases to find primary literature to learn more about a Bird Family.
8. Keep journal records of field sightings and behaviors of Birds.

Student Learning Outcomes (SLOs) for Biology:

1. Demonstrate an understanding of evolution by natural selection.
2. Demonstrate an integration of environmental awareness into everyday modern life.
3. Understanding how to incorporate molecular biology into the study of the whole organism.
4. Demonstrate utilization of various field techniques toward addressing scientific questions in the discipline.
5. Conduct basic laboratory experiments utilizing standard observational strategies.

Marketable Skills

1. Ability to organize, analyze, and interpret data.
2. Proficiency in using presentation software.
3. Experience in managing time and meeting deadlines.
4. Ability to speak effectively and write concisely about scientific topics.
5. Experience in the development of professional email correspondence.

Attendance:

Mandatory. No roll will be called, but this course is sized to where I will recognize when someone is not present. I am allowed to drop you from my class if you miss more than six times (that accounts for 2 full weeks of lecture). I do not wish to hear excuses for missing class, and do not want to hear about it every time you are gone. Absences are excused only if you have a documented, university approved excuse (hospitalization, funeral, etc.) DO NOT MISS EXAMS unless you have a documented, university-approved excuse. If you do not inform me of your approved absence before the exam it will be a ZERO. For labs, DO NOT MISS LAB PRACTICALS!!! It is impossible to re-run them as they are setup with many lab components that take up space that is not guaranteed.

SRSU Library Services

The Sul Ross Library offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu. Off-campus access requires your LoboID and password. Check out materials using your photo ID. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

SRSU Disability Services:

ADA (Americans with Disabilities Act) Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Students seeking accessibility/accommodations services must contact Rebecca Greathouse Wren, LPC-S, SRSU's Accessibility Services Coordinator at 432-837-8203 (please leave a message and we'll get back to you as soon as we can during working hours), or email rebecca.wren@sulross.edu. Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas, 79832

ACADEMIC HONESTY:

The University expects all students to engage in all academic pursuits in a manner that is beyond reproach and to maintain complete honesty and integrity in the academic experiences both in and out of their classroom. The University may initiate disciplinary proceeding against a student accused of any form of academic dishonesty, including but not limited to, cheating on an examination or other academic work, plagiarism, collusion, and the abuse of resource materials. "Cheating" includes 1. Copying from another student's test paper, laboratory report, other report, or computer files, data, listings, and/or programs, or allowing another student to copy from same. 2. Using, during a test, materials not authorized by the person giving the test. 3. Collaborating, without authorization, using, buying, selling, stealing, transporting, soliciting, copying, or possessing, in whole or in part, the contents of a non-administered test. 5. Substituting for another student; permitting any other person, or otherwise assisting any other person to substitute for oneself or for another student in the taking of an examination or test or the preparation of academic work to be submitted for academic credit. 6. Bribing another person to obtain a non-administered test or information about a non-administered test. 7. Purchasing, or otherwise acquiring and submitting as one's own work any research paper or other writing assignment prepared by an individual or firm. This section does not apply to the typing of a rough and/or final version of an assignment by a professional typist. 8. "Plagiarism" means the appropriation and the unacknowledged incorporation of another's work or idea in one's own written work offered for credit. 9. "Collusion" means the unauthorized collaboration with another person in preparing written work offered for credit. 10. "Abuse of resource materials" means the mutilation, destruction, concealment, theft or alteration of materials provided to

assist students in the mastery of course materials. 11. "Academic work" means the preparation of an essay dissertation, thesis, report, problem, assignment, or other project that the student submits as a course requirement or for a grade. 12. "Falsification of Data" means the representation, claim, or use of research, data, statistics, records, files, results, or information that is falsified, fabricated, fraudulently altered, or otherwise misappropriated or misrepresented. All academic dishonesty cases may be first considered and reviewed by the faculty member. If the faculty member believes that an academic penalty is necessary, he/she may assign a penalty but must notify the student of his/her right to appeal to the department chair, the dean and eventually, to the Provost and Vice President for Academic and Student Affairs before imposition of the penalty. At each step in the process, the student shall be entitled to written notice of the offence and/or of the administrative decision, an opportunity to respond, and an impartial disposition as to the merits of his/her case. The decision of the Provost and Vice President for Academic and Student Affairs shall be final.

I will reiterate here, I take academic dishonesty and plagiarism very seriously. Citations are your friend.

Classroom Climate of Respect

Importantly, this class will foster free expression, critical investigation, and the open discussion of ideas. This means that all of us must help create and sustain an atmosphere of tolerance, civility, and respect for the viewpoints of others. Similarly, we must all learn how to probe, oppose and disagree without resorting to tactics of intimidation, harassment, or personal attack. No one is entitled to harass, belittle, or discriminate against another on the basis of race, religion, ethnicity, age, gender, national origin, or sexual preference. Still we will not be silenced by the difficulty of fruitfully discussing politically sensitive issues.

Diversity Statement

"I aim to create a learning environment for my students that supports a diversity of thoughts, perspectives and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, socioeconomic class, age, nationality, etc.). I also understand that the crisis of COVID, economic disparity, and health concerns, or even unexpected life events could impact the conditions necessary for you to succeed. My commitment is to be there for you and help you meet the learning objectives of this course. I do this to demonstrate my commitment to you and to the mission of Sul Ross State University to create an inclusive environment and care for the whole student as part of the Sul Ross Familia. If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you."

For Remote/Online Courses Only - SRSU Distance Education Statement.

Students enrolled in distance education courses have equal access to the university's academic support services, such as library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires secure login. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website. Directions for filing a student complaint are located in the student handbook.

TENTATIVE LECTURE SCHEDULE

	DATE	TOPIC	Chapter
<i>Week 1</i>			
	1/18	Syllabus, Introduction to Ornithology	Short History
<i>Week 2</i>			
	1/23	Avian Characteristics	Ch 1
	1/25	Nonpasserines 1	Table 1-1, Ch 3
<i>Week 3</i>			
	1/30	Nonpasserines 1	Table 1-1, Ch 3
	2/1	Passerines 1	Table 1-1, Ch 3
<i>Week 4</i>			
	2/6	Passerines 2	Table 1-1, Ch 3
	2/8	Evolutionary origin of birds	Ch 2
<i>Week 5</i>			
	2/13	Avian phylogeny	Ch 2.3 and 3
	2/15	EXAM 1	
<i>Week 6</i>			
	2/20	Feathers	Ch 4
	2/22	Flight	Ch 5
<i>Week 7</i>			
	2/27	Physiology	Ch 6
	3/1	Senses, Brains, and Intelligence	Ch 7
<i>Week 8</i>			
	3/6	Vocalizations	Ch 8
	3/8	EXAM 2	
<i>Week 9</i>			
	3/13	SPRING BREAK	
	3/15		
<i>Week 10</i>			
	3/20	Annual Cycles, Migration, and Navigation	Ch 9 and 10
	3/22	Social Behavior	Ch 11
<i>Week 11</i>			
	3/27	Bird Sex	Ch 12
	3/29	Sexual Selection	Ch 13
<i>Week 12</i>			
	4/3	Breeding Systems	Ch 14
	4/5	Exam 3	
<i>Week 13</i>			
	4/10	Nests and Incubation	Ch 15

	4/12	Parents and Their Offspring	Ch 16
<i>Week 14</i>			
	4/17	Life Histories	Ch 17
	4/19	Populations	Ch 18
<i>Week 15</i>			
	4/24	Speciation	Ch 19
	4/26	Communities	Ch 20
<i>Week 16</i>			
	5/1	Conservation	Ch 21
	5/3	Bird Papers Discussion	
<i>Week 17</i>			
	5/6	Studying birds popular topics	
	5/8	Review	
Final	5/13	Final Exam 8 AM – 10 AM	

LAB SCHEDULE

	DATE	TOPIC
<i>Week 2</i>	1/23	No Lab
<i>Week 3</i>	1/30	Introduction, Feathers, External anatomy
	2/4	SATURDAY TRIP to Balmorhea
<i>Week 4</i>	2/6	Internal anatomy, Nests and Eggs
<i>Week 5</i>	2/13	Field Trip: Kokernot Park
<i>Week 6</i>	2/20	Bird Taxonomy 1
<i>Week 7</i>	2/27	Bird Taxonomy 2
<i>Week 8</i>	3/6	Lab Practical 1
<i>Week 9</i>		SPRING BREAK
<i>Week 10</i>	3/20	
<i>Week 11</i>	3/27	Bird Taxonomy 4
<i>Week 12</i>	4/3	Field Trip: Alpine Cemetery
	4/8	Saturday Field Trip Elephant Mtn: Dove Trapping
<i>Week 13</i>	4/10	Field Trip: TBD
<i>Week 14</i>	4/17	LAB PRACTICAL 2
<i>Week 15</i>	4/24	Bird songs
<i>Week 16</i>	5/1	Bird Song Quiz and Presentations