

LECTURE SYLLABUS BIOL 4403/5407 Herpetology Fall 2020

Instructor:	Dr Sean P. Graham	Office Hours:	virtual (email) zoom by appt.
Lectures:	MWF 9:00-9:50 WSB 101	Office phone:	432-837-8084
Laboratory:	M 3:-4:50, 5-6:50 WSB 107	Email:	sean.graham@sulross.edu
Office:	WSB 221		

Course Description: Herpetology is the study of amphibians and non-avian reptiles. This course will survey the origin, evolution, systematics, taxonomy, and diversity of amphibians and non-avian reptiles. The laboratory component of this course will make use of preserved specimens to illustrate morphology, taxonomy, natural history, reproduction, and other aspects of reptile and amphibian biology. A separate syllabus will be provided for the lab. Many materials associated with this course (e.g. this syllabus, lecture and lab handouts, grades) will be distributed through the Blackboard web site.

Recommended Books (NOT REQUIRED):

- (1) *Herpetology, 3rd ed.* (2009). Vitt, and Caldwell. Academic Press. ISBN 978-0-12-374346-6
This text is a large and comprehensive view of Herpetology. We will not have the opportunity to cover every chapter, but purchasing this text will greatly enhance your understanding of the lecture material.
- (2) *A Field Guide to the Reptiles and Amphibians: Eastern/Central North America, 4th ed.* Robert Powell, Roger Conant, and Joseph T. Collins. Boston: Houghton-Mifflin. **(Highly recommended!)**

Required materials: Rite in the Rain Field notebook. \$ 6-15 online. Suggested dealers: Ben Meadows, Amazon.

Exams & Grading: The table below illustrated the grading for this course.

3 lecture exams @ 100 pts ea	300
Lab exams (3 @ 100 pts ea)	300
Participation/Field Notebook	50
Total Credit	650 points

A 90 — 100% B 80 — 89% C 70 — 79% D 60 — 69% F 0 — 60%

Student Learning Outcomes (SLOs) for Biology:

- 1) The student will be able to demonstrate an understanding of basic biological concepts, including but not limited to evolution via natural selection, cell theory, and the role and function of DNA.
- 2) The student will be able to demonstrate utilization of various field techniques toward addressing scientific questions in the specific discipline. These field techniques can include, but are not limited to, plant collection and processing, various animal collection techniques, ecological surveying and sampling, and biodiversity indexing.
- 3) The student will be able to use biological instrumentation to solve biological problems using standard observational strategies.
- 4) The student will develop writing skills by summarizing and critiquing recent relevant biological literature.

Student Learning Outcomes (SLOs) for Biology, MS:

1. Understanding and implementation of scientific methodology
2. *Utilization of field techniques toward addressing scientific questions**
3. Be able to utilize statistics toward the analysis of data within the discipline
4. Be able to effectively disseminate scientific findings using both written and oral communication.

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.

Tentative schedule (subject to change)

Week	week of	Topic
1		Introduction
1		Evolution of amphibians from fishes
2		Early evolution of Amphibia
2		Labor Day Sep 7 no classes, no lab
2		Characteristics of modern Caudata & Gymnophiona
3		Characteristics of modern Anura
3		Evolution of Amniota from Tetrapoda
4		Major groups of amniotes: what is a reptile?
4		Evolution of Archosauromorpha & Lepidosauromorpha

First Exam: Oct 2

5		Water Economy
6		Gas Exchange
6		Temperature
7		Evolution of Endothermy/Thermoregulation
7		Amphibian & Reptilian Locomotion
8		Special sensory adaptations
8		Special sensory adaptations

Second Exam; October 30

9		Special sensory adaptations
10		Amphibian and Reptile foraging behavior
10		Escape from predation by amphibians and reptiles
11		Reproductive biology of Caudata and Gymnophiona
11		Reproductive biology of Anura
12		Reproductive biology of Anura
12		Reproductive Biology of Reptilia

Thanksgiving Holiday Week of Nov 26

13		Reproductive biology of Reptilia
13		Conservation of Herps

Last day of class Dec 2. Finals Week Dec 4, 7-9

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. Please contact me, Ms. Rebecca Greathouse Wren, M.Ed., LPC-S, Director/Counselor, Accessibility Services Coordinator, Ferguson Hall (Suite 112) at 432.837.8203; mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832. Students should then contact the instructor as soon as possible to initiate the recommended accommodations.

SPECIAL COVID-19 STUFF:

- 1) **Masks:** Face coverings are required indoors and outdoors on SHSU campuses unless you are in a private space or are engaged in an activity for which wearing a covering is impractical. In this class, if a student refuses to wear a mask/wear a mask properly, class will be cancelled, and according to SHSU policy, I will be forced to report the student to the Dean of Students office. Please note that a face mask that has an exhalation valve or vent is not acceptable. <https://www.shsu.edu/katsafe/face-coverings#2d0290a3-7bfe-4a69-9bab-14fb494c332b>
 - 2) **Assigned Seating:** There will be an assigned seating chart for each group to encourage social distancing.
 - 3) **Disinfection of Classroom Surfaces:** Each person should disinfect their space at the beginning and end of each class meeting. The university has provided disinfectant wipes in our classroom. When you enter the classroom, please take a wipe and use it to clean your space before settling in. If possible, please keep that wipe to use again to clean your space before you leave. Although, SHSU will provide access to hand sanitizer at the entrances to classroom buildings, I encourage you to also carry your own sanitizer with you in public.
 - 4) **Orderly Dismissal:** When class is over, I will dismiss students row by row, starting with the row closest to the exit. Each day, I will end class a little early so that you have enough time to wipe down your desk and wait to be dismissed by row.
 - 5) **Food & Drinks:** There will be no eating or drinking in the classroom. If you need to take a sip of your drink during class time, you may leave the room to do so.
 - 6) **Paperwork:** In order to maintain social distancing and reduce the transmission of germs via paper, all paperwork requiring faculty signatures should be sent as digital documents via email, e.g., athletic schedules, doctor's notes, SSD forms, etc. I will not pass out any papers to students and I will not accept any papers from students.
 - 7) **Limited in-class interaction:** We will do our absolute best to maintain social distancing in the classroom. Please stay 6 feet away from my desk. I will be happy to answer general questions during class time, but I recommend that you address personal questions virtually.
 - 8) **No in-person office hours.** My office is not large enough to accommodate the CDC's recommendations for social distancing; therefore, all office hours will be held virtually.
 - 9) **Travel:** *If you have travelled internationally*, you are required to self-quarantine for 14 days upon your return. *If you have travelled locally or out of state*, you are required to self-quarantine for 14 days only if the local destination or state you traveled to is under a CDC COVID-19 travel advisory. <https://www.shsu.edu/katsafe/restart2020/faq#b73e7b75-e764-44b3-a404-66f4d498f0f6>
 - 10) **Illness:** Students who are experiencing COVID-19 symptoms, have been diagnosed with COVID-19, or have been in close contact with a person who has been diagnosed with COVID-19, PLEASE DO NOT COME TO IN-PERSON SESSIONS. <https://www.shsu.edu/katsafe/covid-19-protocols>
If you have tested positive for COVID-19, please self-report via the "Restart 2020" SHSU web page. Go to <https://www.shsu.edu/katsafe/restart2020/> and click on the link on the right titled "Report Your Positive Case" (alternatively, you may contact Erica Bumpurs directly at stdemb17@shsu.edu).
- Students who are symptomatic or who have had known exposure to COVID-19 may be tested at the Student Health Center.