

Instructor: Robert C. Dowler

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Office Hours: M 10:30-12; T 1:30-3; W 10:30-12, 1:30-3. Others times by appointment. Any modifications will be posted on my office door.

Course Information

Student Learning Outcomes

The primary goal of this course is to give an overview of mammalogy, the study of mammals. This will be achieved, in part, through the presentation of information on our current understanding of the biology and classification of mammals, their evolutionary history, and the methodology used to study mammals. Students successfully completing this course should have a broad understanding of the field of mammalogy. Knowledge of Student Learning Outcomes will be assessed as multiple choice, fill-in, or discussion questions on examinations.

Required Texts and Materials

Feldhamer, G.A., L.C. Merritt, C. Krajewski, J. L. Rachlow, and K. M. Stewart. 2020. Mammalogy, 5th ed. Johns Hopkins University Press, Baltimore. 727 pp.

Schmidly, D. J. and R. D. Bradley. 2016. The Mammals of Texas, seventh edition. University of Texas Press. 694 pp. [Available free on line at this url: <https://www.depts.ttu.edu/nsrl/mammals-of-texas-online-edition/>]

[The following lab manual will be used in labs, but is not essential. A new edition is soon to be in press. Used copies may be available from online sources. Some copies of old lab manuals will be available for use in lab.]

Martin, R. E., R. H. Pine, and A. F. Deblase. 2001. A manual of mammalogy with keys to families of the world, 3rd ed. Waveland Press, Inc. Long Grove, IL

An alternative is a newer mammalogy lab manual:

Ryan, J. M. 2018. Mammalogy techniques – lab manual. Johns Hopkins University Press.

Dissection Kit—you are welcome to bring your own dissecting tools; however, we will have some for your use in the lab for preparing study skins of mammals.

Optional Texts—if you are thinking of a career in mammalogy, these should be added to your personal library.

Reid, F. A. 2006. A Field Guide to Mammals of North America North of Mexico, 4th ed. Houghton Mifflin Co.

Ammerman, L. K., C. L. Hice, and D. J. Schmidly. 2012. Bats of Texas. Texas A&M University Press, College Station. 305 pp.

Kelt, D. A. and J. L. Patton. 2020. A manual of Mammalia – an homage to Lawlor’s “Handbook to the orders and families of living mammals.” University of Chicago Press.

Grading

Evaluation and Grades

Course grades will be determined as indicated in the table below. The quiz grade can be replaced with the average of the total lab practical grade average.

	Percent of Total Grade
Lecture exams (2 X 100=200 pts)	18
Lab practical exams (2 X 100; 1 X 150; =350 pts)	32
Field trip participation – field notes – iNaturalist project (100 pts)	9
Quizzes (100 pts)	9
Specimen/Skeleton preparation (100 pts)	9
Comprehensive final exam (150 pts)	14
Graduate project (100 pts)	9
Total pts - 1100	100%

Grading System

Course grades will be dependent upon completing course requirements and meeting the student learning outcomes.

The following grading scale is in use for this course:

- A = 90.00-100 points
- B = 80.00-89.99 points
- C = 70.00-79.99 points
- D = 60.00-69.99 points
- F = 0-59.99 points

Specimen Preparation (due date: 8 November)

Each student will prepare a minimum of 10 specimens of mammals, of which one will be a medium-sized mammal. Mammal specimens will be provided or collected on field trips.

Field Trips

Two or more overnight or weekend field trips will be taken during the semester. **Students are required to attend one of these.** There will be additional opportunities for local field collecting trips if arrangements cannot be made to attend the longer trips. The field trip participation grade will be based in part on turning in **field notes** from one of these trips. An iNaturalist project will be set up on the web for this course. Students will be required to log a minimum of 10 mammal observations during the semester. Details on dates and locations of the field trips and the procedures for both field notes and the iNaturalist project will be given in class.

Graduate Project: For graduate credit in Mammalogy, each student will be required to complete one of following:

- 1) gather data and write a paper for possible publication in some aspect of mammalogy or
 - 2) implement a separate class exercise associated with the field activities in the course or
 - 3) design a lecture or lab activity to supplement understanding of some aspect of mammalogy.
- Details for this requirement will be discussed with the graduate students in the course.

General Policies Related to This Course

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)¹
- [Angelo State University Catalog](#)²

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university's [Statement of Academic Integrity](#).³

Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the

services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the [Student Disability Services website](#).⁴ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center, Room 112

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)⁵ for more information.

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 Student Absence for [Observance of Religious Holy Day](#)⁶ for more information.

Title IX at Angelo State University

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a

broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Miller, J.D. You may submit reports in the following manner:

Online: [Incident Reporting Form](#)⁷

Face to Face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: michelle.miller@angelo.edu

Note, as a faculty member at Angelo State, I am a mandatory reporter and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit the [Title IX website](#).⁸

Information About COVID-19

Please refer to ASU's [COVID-19 \(Coronavirus\) Updates](#)⁹ web page for current information about campus guidelines and safety standards as they relate to the COVID-19 pandemic.

Personal Risks Associated With This Course: As with many courses in biology, the study of mammalogy has many inherent risks. Because you will have the opportunity to work with live and preserved animals, and to participate in field work, there will be risks not encountered in many other courses at Angelo State University. I will make every effort to minimize the risks and provide information to minimize exposure to hazards; however, you should be aware that hazards exist in this course. If you have concerns about participating in any of the exercises in this course, I will make other options available to you so that you can meet the requirements of the course. You will be asked to sign a release waiver to fully participate in the course. Additional information concerning this will be provided in class.

Course Schedule

Week of	Reading*Feldhamer et al.	Topics
23 AUG	1-2	Mammalogy as a science; Intro to orders; history of mammalogy, mammalian characteristics
30 AUG	4	Mammalian characteristics-skull and dentition; mammal origins;
6 SEP	5, 9	Zoogeography; reproduction
13 SEP	4 (+ 223-27), 10	Ordinal classification; Monotremes, Marsupials
20 SEP	21	Chiroptera
27 SEP	21	Chiroptera (cont.), LECTURE EXAM I---29 SEP
4 OCT	17, 11	Shrews, moles, tenrecs, elephant shrews and aardvark
11 OCT	14, 15	Tree shrews, colugos, and primates
18 OCT	13	Armadillos and anteaters
25 OCT	16	Rodentia
1 NOV	16	Rodentia (continued)
8 NOV	16	Lagomorpha LECTURE EXAM 10 NOV;
15 NOV	18	Carnivora and pangolins
22 NOV	12	Proboscidea, Hyracoidea, Sirenia (THANKSGIVING BREAK)
29 NOV	19, 20	Perissodactyla, Artiodactyla, [Cetacea]

COMPREHENSIVE FINAL-WEDNESDAY - DECEMBER 8, 8:00 A.M.

-----MAMMALOLOGY LAB SCHEDULE-----

Lab Period	Topics	Readings *Martin et al = M Schmidly/Bradley = S&B
23 AUG	Field methods: collecting and preparing specimens; diseases and course risks	M – CH 29, 30, 31
30 AUG	Preparing study skins	M – CH 29, 31
6 SEP	NO LAB- LABOR DAY HOLIDAY	
13 SEP	Skull, skeleton and dentition; soft anatomy	M – CH 2, 3, 6
20 SEP	Keys and keying; Bats	M – CH 8, 14 S&B pp 110-216
27 SEP	Monotremes and marsupials; insectivores,	M – CH 9, 10, 11, 12 S&B pp 56-60; 93-109
4 OCT	LAB PRACTICAL 1	
11 OCT	Miscellaneous orders	M – CH 13, 15, 16, 17, 18, 21; S&B pp 64-70
18 OCT	Rodents (part)	M – CH 23; S&B pp 447-450, 529-630
25 OCT	Rodents (part); Lagomorphs	M – CH 23, 22; S&B pp 450-529
1 NOV	LAB PRACTICAL 2	
8 NOV	Carnivores	M – CH 19; S&B pp 217-310
15 NOV	Ungulates and cetaceans	M – CH 20, 25, 26, 27

22 NOV Review or makeup lab

29 NOV LAB PRACTICAL 3

¹ <https://www.angelo.edu/student-handbook/>

² <https://www.angelo.edu/catalogs/>

³ <https://www.angelo.edu/student-handbook/community-policies/academic-integrity.php>

⁴ <https://www.angelo.edu/services/disability-services/>

⁵ <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>

⁶ <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>

⁷ <https://www.angelo.edu/incident-form>

⁸ <https://www.angelo.edu/title-ix>

⁹ <https://www.angelo.edu/covid-19/>