

Syllabus for Mammalogy

Bio 4434: Fall 2009

<http://www.wtamu.edu/~rmatlack/bio4434.htm>

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Lecture: TTH 9:00-9:50, ANS 316

Lab: W 1:00 – 4:50, ANS 310

Office Hours: T, Th 12:00-1:00, W 10:00-11:00. I would be happy to schedule an appointment to meet with you at anytime I am available. You may schedule an appointment to meet with me via email or phone. I check my email and voice mail several time each day and will promptly reply to your messages.

Text Books: *Mammalogy: Adaptation, Diversity, and Ecology, 2nd Edition.* Feldhamer, Drickamer, Vessey, and Merritt.

Mammals of Texas. Schmidly, Revised Edition. 2004. (optional)

The Mammals of Texas: Online Edition. William B. Davis and David J. Schmidly. 1994. (<http://www.nsrll.ttu.edu/tmot1/Default.htm>)

Course Content: This course will provide the student with a detailed understanding of the biology, ecology, and diversity of mammals. Students will become familiar with the characteristics and members of the orders of mammals of the world, the families of mammals of North American, and the species of mammals common to Texas and especially the Panhandle. Identification of mammals from sign, skins, skulls, and dental characteristics will be covered in the laboratory portion of the course.

Course Objectives:

1. Examine the biology of mammals with an emphasis on dentition and the structures/functions associated with locomotion
2. Become familiar with the ecology, behavior, and habitat requirements of mammals
3. Survey the diversity of mammals and learn the characteristics of the orders of mammals of the world and the families of mammals of North America
4. Become proficient at identifying, by study skin, skull or dental characteristics, mammal species of the Panhandle and other selected species
5. Practice reading and interpreting scientific articles
6. Become an expert on the natural history of a selected species and develop scientific writing skills by preparing a species account for that species
7. Further your ability to think analytically and critically about information presented to you in class and in your readings
8. Practice interpreting graphs and understanding data sets

Class Policies:

Attendance - I cannot imagine that you will find it possible to master this material without regular class attendance. Regardless of whether you are in class or not, however, you are

responsible for everything which is discussed in lecture, any announcements made in class, everything which is assigned as class reading, and any handouts which are given in class. If you miss class, you must make your own arrangements for access to class notes or handouts from classes that you miss. I will not provide copies of my class notes except under very rare circumstances (serious injury, surgery, etc.) and by PRIOR arrangement only.

Grading – Your lecture grade will be based on your performance on 3 exams (2, 150-point lecture exams and a 150-point final exam), a hantavirus summary and a species account. The final exam will not be cumulative. Extra credit will not be given. Your laboratory grade will be based on lab quizzes and lab exams (see lab information for details). Your lecture grade is worth 55% of your final grade and lab grade is worth 45%.

Grade scale: A= 90-100%
 B= 80-89%
 C= 70-79%
 D= 60-69%
 F= 0-59%

Tentative Lecture Exam Dates:

Exam 1	TUE, 22 September
Exam 2	TUE, 27 October
Final Exam	8:00 am, THU, 10 December

Lecture:

	<u>Points</u>	<u>Total</u>
Exams	150 pts each	450
Hantavirus summary	25 pts	25
Species account	125 pts	<u>125</u>
		600

Important Dates:

<u>Date</u>	<u>Assignment</u>
8 September	Select species for species account
10 September	Hantavirus Summary Due
17 September	Reference list due for species account
20 October	Species Account Due
17 November	Revised species account due

Graduate student requirements: Graduate students are required to complete additional work (enrichment) in stacked classes. In Mammalogy, you will each be required to act as an editor for student species accounts. You will be responsible for general editing and insuring that the accounts contain the proper information in the correct order and that the proper format was followed (in-text and end of text citations, etc.). You will be evaluated on the quality of both the initial and final versions of the species account and must have the accounts turned in to me on time.

Hantavirus report: Each student is required to write a 2-page report about Hantavirus using information from the Center for Disease Control web page (see the link located in the class web page; be sure to summarize the information in your own words – do not plagiarize). Your report must explain what Hantavirus is, briefly describe its history, tell what species carry the disease, how it is transferred to humans, describe the disease caused by the virus in humans, and describe the symptoms for the disease in humans. **Include the following statement at the end of your report and sign and date the report below this statement:** “I am aware of the risks associated with handling wild rodents and am aware that handling rodents is not a requirement of this class. If I choose to handle rodents, I do so accepting all responsibilities for the associated risks.”

Makeup exams – All exams must be taken at the times announced in class or in the syllabus. Make up exams will be possible only with a doctor’s letter or letter of absence for a school-sponsored event. If you have a serious reason for missing an exam, you must contact me BEFORE the scheduled exam period to notify me that you cannot take the exam (again, written documentation is required). You are then responsible for arranging with me to make up the test or quiz within two days of your return to campus. **Note:** Exams are subject to change and I reserve the right to change any and all information contained in the syllabus.

Academic dishonesty - If you are uncertain about what constitutes academic dishonesty, please read the appropriate sections in the Code of Student Life (see additional information at the end of this syllabus). I will have zero tolerance for academic dishonesty. Instances of dishonesty will be punished to the fullest extent possible, including the receipt of a failing grade for the course. Take care to avoid the appearance of cheating! During exams keep your eyes on your own paper, keep books and bags closed, and put all paper away.

Lecture content:

<u>Chapter(s)</u>	<u>Topics</u>	<u>Readings</u>
Ch 4	Characteristics of mammals	Ch 4 (52-56), Hantavirus reading (Fulhorst et al., 2007)
Ch 1 & 2	The study and history of mammalogy	Ch 1 (2-5); Ch 2
Ch 5	Integument, support and movement	Ch 5
Ch 6	Foods and feeding	Ch 6
Ch 8	Environmental adaptations	Ch 8 (Merritt, 1986)
Ch 9	Reproduction	Ch 9
Ch 20	Communication, aggression, and spatial relations	Ch 20
Ch 21	Sexual selection, parental care, and mating systems	Ch 21
Ch 22	Social behavior	Ch 22
Ch 23	Dispersal, habitat selection, and migration	Ch 23 (Stapp, 1998)
Ch 28	Domestication and domesticated mammals	Ch 28 (Diamond, 1994)
Ch 25	Community Ecology	Ch 25 (Brown and Heske, 1990)

BIOL 4434L – Mammalogy Laboratory

Laboratory syllabus and general information about Mammalogy Lab

Lab web page: <http://www.wtamu.edu/~rmatlack/biol4434/lab>

Lab: Tuesday 1:00-4:50 pm, ANS 310.

SCHEDULE FOR MAMMALOGY LAB—FALL 2003

- 26 Aug. Introduction, bones and structures of the mammalian skull, Teeth, Types of traps used in mammalogy
- 2 Sep. Orders of Mammals of the World (Lecture)
- 9 Sep. Common Texas mammals, meanings of roots for scientific names of Texas mammals, skins of common species of Insectivora and Rodentia, **Quiz 1**
- 16 Sep. Mammalian skeleton, skins of Didelphimorphia, Lagomorpha, Chiroptera, and remaining Rodentia, **Quiz 2**
- 23 Sep. Skins and skulls of Xenarthra, Carnivora, and Artiodactyla, **Quiz 3**
- 30 Sep. **ORDERS EXAM**
- 7 Oct. Review for LAB EXAM I, **Quiz 4**
- 14 Oct. **LAB EXAM 1 (know orders)**
- 21 Oct. Families of mammals of North America (Lecture)
- 28 Oct. Skulls of Didelphimorphia, Insectivora, Chiroptera, Lagomorpha, and Rodentia, **Quiz 5**
- 4 Nov. Skulls of Chiroptera, Analysis of prey in carnivore scats or owl pellets, **Quiz 6**
- 11 Nov. **FAMILIES EXAM**
- 18 Nov. Review of all material for LAB EXAM II, **Quiz 7**
- 25 Nov. No class (Thanksgiving Holiday)
- 2 Dec. **LAB FINAL EXAM (know orders and families)**

DISTRIBUTION OF POINTS IN MAMMALOGY LABORATORY

Lab Exam I	100 points
Lab Exam II (cumulative)	150 points
Orders Exam	100 Points
Families Exam	100 Points
Scheduled Quizzes (10 pts. each)	Up to 60 points
Total	510 points

GRADES—All students are expected to attend classes regularly. Make-up lab quizzes will only be given under very unusual circumstances and only with prior approval. Although attendance is not taken during lab, each lab quiz is worth 10 points, so missing class (and that lab's quiz) will lower your grade. **SPELLING:** 1/2 point off with 1-2 letters wrong; more wrong letters equal all wrong. When writing scientific names on quizzes or exams, you must **ALWAYS USE UNDERLINES** to indicate italics; omission of underlines will lead to lost points. Additionally, always capitalize the genus and never capitalize the species in a scientific name.

MISSING EXAMS—preparing a lab exam takes a tremendous amount of time and effort and makeup exams will be given **ONLY UNDER THE CONDITIONS OUTLINED IN THE CLASS SYLLABUS**. Makeup exams, if given, will not be as long (i.e., will contain only a subset of the material) as the actual lab exam and may be in a different format (e.g., oral exam).

ADDITIONAL HELP—ANS 310 will be open for additional study periods during the weekends immediately preceding the two lab exams if there is not a conflict with another class using the lab. This is a privilege and the privilege will **be immediately revoked if specimens are damaged, the lab or specimens are left in a mess, or if the specimens are removed from the room**. Additionally, a web page has been created to provide information and serve as an online lab manual. The site contains (or will contain) downloadable versions of the lab handouts and images and information designed to help you in this course. The site can be found at <http://www.wtamu.edu/~rmatlack/biol4434/lab>. Please become acquainted with accessing the web page because I will occasionally post class news and announcements during the semester.

OUTDOOR LABS—Mammalogy is a field course and therefore we will have several field trips or outdoor labs. **GENERAL ATTIRE FOR OUTDOOR LABS:** sweaters, sweatshirts, T-shirts, jeans, running shoes, or hiking boots. Please feel free to wear old clothes, because we will no doubt get dirty or muddy from time to time when we go outside. Nothing stifles interest in learning new insights or techniques more than being cold, so dress in warm clothes and do not underestimate the rapidly changing autumn weather. Always bring plenty of water and feel free to bring a snack. Additional information and a packing list will be provided before longer field trips. Be ready to go to the field on any days that the lab schedule indicates a field trip.

Students with Disabilities:

WTAMU seeks to provide reasonable accommodations for all qualified persons with disabilities. This University will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to register with Disability Support Services and to contact the faculty member in a timely fashion to arrange for suitable accommodations.

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Safety:

Safety is everyone's responsibility. Material Safety Data Sheets (MSDSs) are provided for all chemicals used in this class. MSDSs provide information about physical properties, health risks, fire and explosion data, and other important information associated with these chemicals. Before handling or using a chemical, you should refer to the MSDS for that chemical. It is your responsibility to inform the instructor in writing of any health conditions that may prevent you from safely using a chemical (pregnancy, auto immune deficiency, etc.). It is also the responsibility of the student to report any spills or problems found while storing or using a chemical. If you are unsure about a chemical, always ask. If you see any unsafe condition, notify your instructor immediately. If you are unsure about the proper and safe operation of any piece of equipment, ask your instructor for proper instruction. All injuries, spills of materials and unsafe conditions must be reported to the instructor immediately.

Evacuation:

When you receive notice to evacuate the building, please evacuate promptly but in an orderly manner. Evacuation routes are posted in various locations indicating all exits, outside assembly area, location of fire extinguishers, fire alarm pull stations, and emergency telephone numbers (651-5000 or 911). In the event an evacuation is necessary, evacuate immediately; do not use elevators; take all personal belongings with you; report to outside assembly area and wait for further information; students needing assistance in the evacuation process should bring this to the attention of the instructor at the beginning of the semester.

Scholastic Dishonesty:

It is the responsibility of students and instructors to help maintain scholastic integrity at the University by refusing to participate in or tolerate scholastic dishonesty. Commission of any of the following acts shall constitute scholastic dishonesty. This listing is not exclusive of any other acts that may reasonably be said to constitute scholastic dishonesty: acquiring or providing information for any assigned work or examination from any unauthorized source; informing any person or persons of the contents of any examination prior to the time the examination is given in subsequent sections of the course or as a makeup; plagiarism, submission of a paper or project that is substantially the same for two courses unless expressly authorized by the instructor to do so. (2009-2010, CODE OF STUDENT LIFE, Rules and Procedures for Students, West Texas A&M University).

A complete statement regarding scholastic dishonesty can be found in the Student Code of Life at <http://www.wtamu.edu/administrative/ss/code/code.html#procedures>.