

BIO585 - MAMMALOLOGY SPRING 2008

INSTRUCTOR: Dr. Monte L. Thies

OFFICE: LDB115D

TELEPHONE: 294-3746

email: bio_mlt@shsu.edu

OFFICE HOURS: 10:00 - 12:00 MWF, 11:00 – 12:00 TTh, and by appointment

LECTURE: 9:30 – 10:50 TTh in LDB115

LABORATORY: 2:00 – 3:50 Th in LDB115

IMPORTANT DATES (Note: These dates will not change):

17 Jan.	First Day of Classes
21 Feb.	Lecture Exam I
28 Feb.	Lab Exam I
10 March	Spring Break
27 March	Lecture Exam II
3 April	Lab Exam II
1 May	Lab Exam III
8 May	Lecture Exam III
	Collections, Catalogs, and Journals due
13 May	FINAL EXAM 8:00 - 10:00 am

GRADING:

3 Lecture exams	300 pts	
Final exam	200 pts	A = 900 pts
3 Lab exams	225 pts	B = 800 pts
Library work	75 pts	C = 700 pts
Presentation	100 pts	D = 600 pts
Collection material	100 pts	F = <600
<hr/>		
Total	1000 pts	

REQUIRED TEXTS:

- ★ Vaughan, T. A., J. M. Ryan, and N. J. Czaplewski. 2000. *Mammalogy: Adaptation, diversity, and ecology*. Harcourt College Publishing, Orlando.
- ★ Deblase, A. F. and R. E. Martin. 1981. *A manual of mammalogy with keys to families of the world*. Wm. C. Brown Co., Dubuque.
- ★ Reid, F. A. 2006 or comparable edition. *Mammals of North America*. The Peterson Field Guide Series, Houghton Mifflin Co., Boston.

ADDITIONAL SUGGESTED TEXTS:

- ★ Glass, B. P., and M. L. Thies. 1997. *A key to the skulls of North American mammals*, 3rd ed. Self published by the authors.

Class Attendance Policy: Regular and punctual class attendance is expected of each student. To do well, you must be an equal and active participant in your education. Therefore, it is your responsibility to attend class. Most testing material will be based on class lecture, laboratory exercises and notes: to do well on tests **you must attend lecture and read the book!** Excessive absences (>6 lectures and 2 labs) may influence your final grade for the course. This may amount to one letter grade for students on the borderline. If you are unable to come to class due to illness or unexpected circumstances, it is your responsibility to obtain the class notes. You may contact me in my office if you have specific questions about a lecture; however, I will not repeat lectures for students who have missed class.

Academic Honesty: The University expects all students to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. Furthermore, the University and its official representatives may initiate disciplinary proceedings against any student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is submitted, plagiarism, collusion and the abuse of resource materials.

GENERAL COURSE OUTLINE:

- A. Introduction
- B. Mammalian Evolution
- C. Survey of extant mammalian orders
 - 1. Monotremes and Marsupials
 - 2. Insectivorans, Macroscelidea, Scandentia, and Dermoptera
 - 3. Chiroptera
 - 4. Primates
 - 5. Xenarthrans and Tubulidentates
 - 6. Carnivores
 - 7. Cetaceans
 - 8. Rodentia
 - 9. Lagomorphs
 - 10. Subungulates
 - 11. Ungulates

LIBRARY WORK - INTRODUCTION TO PROFESSIONAL JOURNALS:

To familiarize the student with differences in content and presentation of various scientific publications catering to mammalogy, articles from each of the following journals are to be read and a short (one page single spaced with appropriate citation information) typewritten abstract of each prepared. The subject must pertain to mammals but the specific topics discussed in the articles are open. All library work is due at the time of the final exam in one package with the completed class notebook.

- Journal of Mammalogy - 3 articles
- Ecology - 2 articles
- Texas Journal of Science - 2 articles
- Systematic Biology - 1 article

Journal of Wildlife Management - 1 article
Evolution - 1 article
American Midland Naturalist - 1 article
Journal of Comparative Physiology (can use Comp. Bioch. Physiol.) - 1 article
Southwestern Naturalist - 3 articles

PRESENTATION:

Each student will make an oral presentation on the evolution and fossil history of a Mammalian order that they will be assigned early in the semester. Each presentation must include a complete set of PowerPoint lecture slides that will be posted to Blackboard after the lecture has been presented to the class. Dates for individual presentations will follow general overviews of each order and serve to wrap up general discussions for each group.

MAMMAL COLLECTION:

Study skins: Each student will be required to turn in a collection (5 specimens representing at least 5 species; at least one must be a large species) of mammal skins and skulls properly prepared as museum specimens. Specimens may be obtained independently by the student or may be collected in class activities. All skins and skulls must have appropriate scientific data and must be of good museum quality. No *Sciurus niger*, *Procyon lotor*, or *Didelphis virginiana* will be accepted without prior consent AND intact skulls.

Animal track casting: Each student must produce plaster castings (not to exceed 5" in diameter) of three different mammal species. Casts must be appropriately labeled with species name and collection data.

Hair slides: Mounted microscope slide sets containing hair samples from at least five different species of mammals. Each completed set must have at least two slides each of bristle, guard, and underhair (a minimum of six slides per species). Slides must be appropriately labeled with species name and collection data.

EXTRA CREDIT:

Extra credit is available for any specimens you legally obtain that we currently do not have in the SHSU teaching collection. These should be in good condition with intact skulls and complete collection data:

Large specimens (rabbits, etc.): 10 pts. (20 pts. max)

Small specimens: 5 pts. (20 pts. max)

Note: No domestic animals will be accepted without prior permission from the instructor.

FIELD TRIPS:

Field trips are being planned for practical experience in small mammal trapping and to demonstrate different field techniques. Specific dates will be announced in class.

Attendance is not mandatory but I expect you to participate - this is where the fun is and practical training occurs.

Local night trips to the Center for Biological Field Studies and surrounding areas to net bats and trap rodents.

Day trip to the Houston Zoo and Museum of Natural Science - the exact date will depend on making arrangements with their curators.

Day trip to Texas A&M Collection of Mammals - arranged for a day later in the semester. The exact date will also depend on making arrangements with their curator.