

LECTURE SYLLABUS

BIOL 4404 Mammalogy Spring 2016

Instructor: Dr Sean P. Graham
Lectures: MWF 9-950 WSB 107
Laboratory: T 3-450 WSB 107
Office: WSB 221

Office Hours: MWF 11-12, T-TH 1-2
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Course Description:

Mammalogy is the study of mammals, one of the most spectacular, successful, and best-studied animal groups. This course will survey the origin, evolution, diversity, physiology, and behavior of mammals. The laboratory component of this course will make use of preserved museum specimens, dissections, and field trips to illustrate morphology, taxonomy, identification, natural history, reproduction, and other aspects of mammal biology. A separate syllabus is available for laboratory. 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/Checklists: NONE REQUIRED

1. *Mammalogy*, Drickhamer et al.
This text is a large and comprehensive view of Mammalogy. We will not have the opportunity to cover every chapter, but purchasing this text will greatly enhance your understanding of the lecture material. I will be basing the lectures and tests in large part on this text.
2. *A Field Guide to Mammals* (Peterson Field Guide). Boston: Houghton-Mifflin. (**Highly recommended! Buy it used online for 1\$**)
3. *Field guide to the Mammals of the Trans Pecos* (Shmidley)

Exams & Grading: The table below illustrated the grading for this course. I do not give comprehensive exams.

3 lecture exams @ 100 pts ea	300			
Lab practicals (3 @ 100 pts ea)	300			
Total Credit	600 points			
A 90 — 100%	B 80 — 89%	C 70 — 79%	D 60 — 69%	F 0 — 60%

Attendance is mandatory. I will not waste class time calling roll because you are all adults. However, this will be a small class and I will notice when you are missing. **I am allowed to drop you from my class** if you miss **more than six times**. I don't want to hear about your excuse for not being in class and I don't want to hear about it every time you're 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 (hospitalization, etc.), and I need to hear about this **BEFORE THE DAY OF THE EXAM**. Otherwise you're out of luck. **DO not miss** lab practicals. It is impossible for me to re-run them.

Course Objectives. At the end of the semester, students should be able to:

1. Sight-recognize the mammals of Texas (especially those in the Trans Pecos), and know the habitat and range in which each would be encountered.
2. Know the families of North American mammals.
3. Know the orders of mammals around the world.
4. Explain the basic external and internal anatomical/physiological features of mammals.
5. Understand the reproductive biology and behavior of mammals.
6. Use a standard field guide to identify mammals.
7. Understand the evolution of mammals.
8. Appreciate the management and conservation of mammal populations.

Program Learning Outcomes (PLOs) 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.

Tentative schedule (subject to change)

Week	Topic	Week of
1	Introduction: Diversity of mammals	20-Jan first day of class
1	Origin and phylogeny of mammals	Fri 22-Jan
2		Mon 25-Jan
2	Form and function I: Anatomy	Fri 29 –Feb
3	II: Physiology	Mon 1-Feb
3	III. Brains and senses	Fri 5 –Feb
4	IV. Food and Feeding	Mon 8-Feb
4	V: Social Behavior and communication	Fri 12-Feb
5	VI: Parental care	Mon 15-Feb
5	First test Friday Feb 19	Fri 19-Feb
6	Reproduction I	Mon 22-Feb
6	Reproduction II	Fri 26-Feb
7	Adaptive Radiation I: Monotremes	Mon 29 Feb
7	II: Marsupials	Fri 4 Mar
8		Mon Mar 7
8	III: shrews, tree shrews, colugos	Fri Mar 11
Spring Break March 14-18		Spring Break Mar 14
9	IV: Chiroptera	Spring Break Mar 18
10	Second test Friday 25 March	Fri 25-Mar
10	V: Primates	Mon 28-Mar
11	VI: Human evolution	Fri 1-Apr
11	VII: Xenarthra and allies	Mon 4-Apr
12	VIII: Carnivora	Fri 8-Apr
12	IX: Cetacea	Mon 11-Apr
13	X: Artiodactyla, Perissodactyla and Cetacea	Fri 15-Apr
13	XI: Rodentia and Lagomorpha	Mon 18-Apr
14	XII: Proboscidea, Hyracoidea, Sirenia	Fri 22-Apr
14		Mon 25-Apr
15	Ecology and Conservation I: Communities	Fri 29-Apr
15		Mon 2-May
16	II: Conservation	Wed May 4, last day classes
	Final exam (not cumulative) Wed 11 May 8-10am	

Students with any learning disabilities will be provided with accommodations. If you would like to request such accommodation because of a physical, mental, or learning disability, please contact the ADA coordinator at 837-8203, FH 112.