

Syllabus
ANIMAL BEHAVIOR

BIOL 512
M, W, F 11-11:50; 408 Shoemaker
Lab: Wed 1-5pm 205 Shoemaker
Office Hours: Mon 3-4pm

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Goals of the Course: There remain many mysteries to be solved in the study of animal behavior. The objective of this course is to survey some of the most puzzling questions of animal behavior and to introduce you to the methods and approaches used by animal behaviorists to solve these puzzles. The lecture is organized around the "four questions" of behavior. These are: How are behavior patterns inherited, elicited, stimulated and produced? How do behavior patterns change over the lifetime of an animal? Why do animals choose to perform one particular behavior rather than alternative ones? What are the evolutionary patterns in behavior seen across a range of species?

The lecture will be taught using a variety of visual aids including nature videos, Power point projection, and printed handouts. The laboratory portion of the course concentrates on teaching you the techniques used to describe, collect and analyze variation in behavior, and experimental design. Helping students develop effective verbal and written communication skills is a goal of this course. You will be asked to think critically to design your own experiments.

The lecture and laboratory portions of the course are inseparable. Lecture exams will cover lab material. Lab exercises integrate lecture material. Point contributions to your final course grade are as follows.

<u>Lecture</u>		<u>Laboratory</u>	
3 EXAMS	300 points	Analyses & Assignments	220 points
Cumulative Final	100 points	Participation	80 points
Quizzes, Homework, DT/DL	100 points		
<i>Subtotal</i>	<i>500</i>	<i>Subtotal</i>	<i>300</i>

Total 800 points available*

*Note: For graduate students the total is 900 points, because they have an additional assignment. They must design a project for the class to conduct during one of our regularly scheduled lab meetings.

Your final grade will be determined as follows: A, 90-100%; A-, 87-89%; B+, 83-86%; B, 80-82%; B-, 77-79%; C+, 73-76%; C, 70-72%; (no C- grade); D, 60-69%; F, <60%, with the exception that the instructor may adjust final grades away from this scale to reflect issues such as, but not limited to, poor conduct, dishonesty, plagiarism, misuse of animals and class resources, and problems with attendance. Attendance is required. Speak with Dr. B about pre-arranged excused absences and make up assignments for emergency absences with proper documentation. DO NOT underestimate the amount of work. There is a lot of reading and contemplation necessary to truly comprehend this subject. You are expected to be an active participant in the lecture and lab portions of the course. Please make sure that you have the necessary background understanding of basic genetics, ecology and physiology. If you have any questions, please ask before you get behind in your studies.

You are expected to have completed assigned readings for the dates listed on the attached lecture/lab schedule. Because each class is unique in the rate that they learn new material, the course schedule and the exact dates of exams may vary. Sometimes you will collect data with a lab partner. However, when working on the assignments that I will grade, please work independently and do not plagiarize. Additional required readings may be put on reserve in the Library or on Blackboard. Our textbook is: Breed, M.D. and J. Moore, 2011. Animal Behavior (Academic Press).

About the lab: Some independently conducted lab work may occur outside of normally scheduled class hours, and labs may sometimes run over the assigned time...animals can be unpredictable. You may be asked to care for your study animals outside of regular class hours. Please dress appropriately...animals can be messy, and there may be inclement weather. All animals must be handled humanely. Some labs will require you to feed/water/clean our animals. Because handling animals and conducting field and lab work has inherent risks, you will be required to review information about zoonotic disease, inform the instructor of any special needs or issues that you may have, follow verbal safety instructions during class activities, and sign a waiver accepting these risks.

Topic and Textbook Readings Schedule (Animal Behavior BISC 512 Fall 2013)

Week	Topic	Reading	Discussion Topic	Lab Topic
Aug 26	Introduction	Chapter 1		Describing behavior
Sep 02	Homeostasis and time budgets	Chapter 4	Welfare	Quantifying behavior
Sep 09	Motivation & Hormones	Chapter 2	Estrogen mimics	Digit ratios
Sep 16	Behavioral genetics	Chapter 3	Pit Bulls	Behavioral selection
Sep 23	Learning	Chapter 5	Animal teaching	Innate behavior
Sep 30	Learning continued		EXAM ONE	Conditioning
Oct 07	Cognition	Chapter 6	Animal intelligence	
Oct 14	Communication	Chapter 7	Rhythm	Sensory worlds
Oct 21	Communication	Chapter 15	Wildlife disturbance	Bee dance
Oct 28	Movement	Chapter 8	EXAM TWO	Navigation
Nov 04	Foraging Self-Defense	Chapter 9 Chapter 10	"Problem" bears	Optimality
Nov 11	Mating systems	Chapter 11		Mate choice
Nov 18	Parenting	Chapter 12	EXAM THREE	
Nov 25	No Class This Week!		Stuffing vs. Dressing	Consuming mass quantities of <i>Meleagris gallopavo</i>
Dec 02	Social behavior	Chapter 14		
Dec 09	FINAL EXAM @ 12pm			