

# Biology 207L: Animal Behavior Laboratory

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## Objectives of the Course

The purpose of the Animal Behavior Laboratory (207L) is for students to have hands-on experiences designing and implementing experiments that concern a variety of taxa and behaviors. After successful completion of the Animal Behavior Laboratory, students should be capable of:

1. Understanding and identify behaviors in a variety of taxa;
2. Designing and implementing experiments to test hypotheses relating to animal behavior;
3. Using statistical analyses appropriate to the experiment's design; and
4. Effectively communicating one's findings (both verbally and in written formats).

## Zoo Project

A major component of this laboratory course is a research project that students will conduct at the Memphis Zoo. Students will work in small groups on a topic related to animal behavior. Students will present their research findings in a paper (written in the format of a scientific article), and in an oral presentation to the class. An electronic copy of each group's data must remain with Dr. Boyle upon completion of the course. The Memphis Zoo has granted the students in Animal Behavior access to the zoo during our class hours. Therefore, it is expected that students in Animal Behavior will assist the zoo by sharing their results with the zoo community.

Guidelines for the zoo project are posted on Moodle, and these guidelines will be reviewed in class. Remember that you are a representative of Rhodes College. All students are required to act responsibly and courteously, especially when the course is in a public setting.

## Animal Research

All protocols for the Animal Behavior course have been approved by Rhodes College's Institutional Animal Care and Use Committee (IACUC). Under no circumstance (either in the Rhodes College laboratory, at the Memphis Zoo, or elsewhere either on-campus or off-campus) are students to subject animals to pain or intense stress. All students are required to follow the protocols that have been established and approved for the Animal Behavior laboratory.

## Assignments

All assignments (including the zoo research paper and presentation) are due by 12:30 PM on the date given on the syllabus, unless stated otherwise. **No late assignments will be accepted.** Please plan ahead to avoid technological problems.

Readings will be assigned prior to each laboratory session. Students are responsible for understanding the material presented in the readings prior to coming to class.

## Special Considerations

It is the student's responsibility to inform Dr. Boyle of any circumstances where the student would not be able to participate in laboratory activities for medical reasons. In such pre-approved situations, an alternative laboratory exercise will be assigned.

## Attendance

Students are required to attend and fully participate in all laboratory sessions. **Students must arrive to class on-time.** Failure to attend (or fully participate in) a laboratory session will result in a grade of “zero” for the work associated with the laboratory. There will be no opportunities for students to make up work that they miss during an absence.

Remember that your absence from laboratory affects you as well as your laboratory partners. In addition to not receiving points for the work associated with the missed laboratory, the following rules apply: If the student misses one laboratory, no additional points are deducted from the overall point total for Animal Behavior. If the student misses two laboratories, 10 points are deducted. If the student misses three laboratories, an **additional** 20 points are deducted (for a total of 30 points deducted). If a student misses four laboratories, an additional 30 points are deducted (60 points total).

Many of the laboratories will have an outdoor component to them. Therefore, it is the responsibility of the student to dress appropriately for the weather (wear layers and sturdy shoes).

## Grading

Students will receive the same grade for Animal Behavior laboratory (207L) and lecture (207). A detailed outline of the grading schema is presented in the lecture syllabus.

## Schedule

Date	Topic	Assignment Due	Readings
Sep. 1	Observations vs. Inference		Wilson (S&J); Behavior worksheet
Sep. 8	Sampling Methods	#1: Response paper due	Experiment worksheet
Sep. 15	Foraging	#2: Lab report (fish)	Foraging worksheet
Sep. 22	Zoo Introduction	#3: Foraging	Watters et al. (2009); Ben-Ari (2001)
Sep. 29	Hypotheses	#4: Inter-observer reliability	Forthman and Ogden (1992)
Oct. 6	Experimental Design	#5: Introduction	Saudargas and Drummer (1996)
Oct. 13	Peer Review	#6: Experimental design	Gopen and Swan (S&A)
Oct. 20	Fall Recess – No Class		
Oct. 27	Data Collection	#7: Response to peers	
Nov. 3	Data Collection		
Nov. 10	Data Collection		
Nov. 17	Data Collection		
Nov. 24	Statistics		Statistics worksheet
Dec. 1	Finalize Project	#8: Statistics	
Dec. 8	<b>Student Presentations</b>	<b>Zoo Paper Due</b>	

Readings marked with (S&J) indicate that the article is located in the lecture book *Exploring Animal Behavior* by Sherman and Alcock. All other readings (articles and worksheets) are posted on Moodle.