

Biol 339: Animal Behavior Laboratory
Spring 2016
Mondays, 1:00-3:50/ 107 ISC (Field Biology Lab)

Instructor: Dr. Kristi Hannam
Office: 259 ISC
Phone: 245-5790
Email: hannam@geneseo.edu

Office Hours: Mondays 9:30-11:00, Tuesdays 4-5:00, or by appointment

Readings will be assigned in class and available via MyCourses

Learning Outcomes:

Upon completion of this course students will:

1. Produce written and oral reports that describe observations of animal behavior, and hypothesize explanations for the behaviors.
2. Participate in development and execution of experiments in small groups and with the whole class.
2. Apply knowledge of theories of animal behavior by developing original tests of assumptions and hypotheses.
3. Design and carry out an independent investigation of animal behavior by identifying one or more testable hypotheses, designing the study, carrying out the investigation, analyzing the data, reporting the results and drawing conclusions.
4. Summarize the results of a published studies of animal behavior, judge the study's merits and guide classmates in a discussion of the study.

The following schedule of lab activities & experiments is not set in stone. The schedule may change depending on the weather, the availability of study animals or the progress of the class in exploring a particular topic.

Date	Lab Activity	Reading/Assignments
18 Jan	NO LAB – Martin Luther King Jr. Day	
26 Jan	Ethics & Statistics for Animal Behavior Research	Ethics Article Handouts on MyCourses
1 Feb	Zoo Field Trip	Zoo Behavior Article <i>Reading Quiz + Zoo Assign</i>
8 Feb	Fish Schooling Behavior	Minnow Article <i>Reading Quiz</i> Stats Assign. Due
15 Feb	Agonistic Behavior & Territoriality in Betta Fish	Lizard Territoriality Article Download imageJ before lab <i>Reading Quiz</i>

22 Feb	Bird Foraging Lab	Foraging Trade-offs Article <i>Reading Quiz</i> Schooling Writeup Due
29 Feb	Bird Foraging Lab/Mate Choice in Nasonia wasps or Crickets	Mate Choice Article <i>Reading Quiz</i> Betta Assignment Due
7 Mar	Bird Foraging Mate Choice/Cockroach Foraging	Mate Choice Assign Due
14 Mar	NO LAB - Spring Break	
21 Mar	Fiddler Crab Lab	Reading TBA <i>Reading Quiz</i>
28 Mar	Fiddler Crab Lab	Project Topic Due
4 Apr	Proposal Reviews & Independent Research Projects	
11 Apr	Independent Research Projects	Crab/Bird Writeup Due
18 Apr	Independent Research Projects	
25 Apr	BBBO Field Trip (*Important* this fieldtrip runs from 8am-12noon)	<i>Reading Quiz</i> + <i>Migration Assign</i>
2 May	Independent Project Poster Presentations	

Grading:

Grades in lab are based on the following assignments:

Individual Lab Reports	35%
Independent Project Proposal & Poster	25%
Field Trips/Writing Assignments/Quizzes	25%
Participation	15%
<hr/> Total	100%

Individual Lab Reports

Although most labs will be conducted as a class or in groups, the lab reports are to be written individually unless otherwise assigned by Dr. Hannam. Lab reports should be written in the format of a

scientific journal article (specific details will be given in class), and each report will be worth 100 pts. Lab Reports are due in class approx. two weeks after the experiments in class are complete, as assigned.

Field Trip/Writing Assignments/Quizzes

For some of the lab experiences and field trips a formal lab report is not required, but an alternative written assignment with data analysis will be completed and turned in. These assignments will typically be due in class one week after the lab experience. In addition, there will be short online quizzes on the reading assignments for each lab due before lab begins. Readings primarily consist of journal articles related to the studies that will be conducted in class that week. Quizzes will open 24 hours before each lab period (on Sunday afternoon) and will be open until 30min before lab begins. Each quiz will consist of multiple choice and short-answer questions about the journal articles or readings assigned. Each quiz should take less than 20min to complete, and students will only be allowed to log in once to complete the quiz.

Independent Project

In the latter part of the semester, students (working in pairs) will design and carry out an independent project. Additional information will be given in class, but will involve: identifying one or more testable hypotheses, designing the study and preparing a written proposal, carrying out the investigation, analyzing the data, and reporting the results and conclusions in a final poster presentation.

Participation

Active participation in the lab each week – in designing and conducting experiments, in participating in, and leading discussion of readings, and developing experimental designs – is worth 15% of your grade. Students may be randomly chosen to lead the discussion of the journal article at their lab table and report on the discussion to the class. Participation will be graded by the instructor each week using a rubric provided to the students.