

Course Title: Animal Behavior Lab (IB 430)
Instructor: Andy Suarez suarez2@illinois.edu

Hours/week: 1 discussion (Monday 10-11), 1 lab (Tues 9-12), behavioral observations outside of lab (average of 3 hours). Meet in 4074 NHB.

Readings: *Measuring Behavior* by Martin and Bateson (2007) (will be provided)

Grading:

Scientific Manuscript 1	25%
Scientific Manuscript 2	25%
Oral Presentation 1	15%
Oral Presentation 2	15%
In Class Participation and Discussion	20%

Welcome to IB 430! You will be working in teams to direct your own independent research projects in animal behavior. Expect a lot of trial and error, to take a deep dive into the literature, and to participate in the process of scientific discovery.

We follow University and CDC guidance about COVID safety. If you exhibit any symptoms or test positive for COVID-19, please quarantine and take necessary precautions (as directed by CUPHD, University Housing, Private Certified Housing and Certified Greek Housing). We will work with you to make up any work you miss. Please see the campus COVID-19 website for more information: <https://covid19.illinois.edu/>

Student Learning Outcomes

At the end of this course students will be able to:

- 1) Articulate and test hypotheses about animal behavior
- 2) Design a scientific experiment to test a scientific hypothesis or hypotheses
- 3) Collect and statistically analyze data
- 4) Report the results of an experiment in the form of a scientific manuscript and a scientific presentation

Discussions

Discussions will occur once per week and will be used as an opportunity to provide the background necessary for students to carry out inquiry-driven research projects from the initial formulation of a project through oral and written presentation of results. Topics covered include the scientific method and hypothesis testing, experimental design, methods in measuring behavior, scientific ethics and animal welfare, and discussion of papers from the primary literature that will serve as background for independent projects. Students will have online readings and activities prior to class as preparatory exercises for discussion. In class, we will use a variety of active learning exercises to engage the students in discussion of each topic. As one of the goals of the course is to acquaint students with 'scientific thinking', discussion sessions will emphasize how to design experiments. Students will work in small groups to design experiments. It is expected that some portion of each lab period will be devoted to discussing problems that students encounter during the design and implementation of their experiments.

Lab

The class will meet for three hours per week for inquiry-based labs. Activities during the labs will include behavioral observations and manipulations in either a field or laboratory setting. The instructor will help students to design and implement experiments that can be accomplished over roughly half of a semester. The first project will be more limited in scope and largely guided by feedback from the instructor. Students will be expected to work more independently on the second project. Students are expected to design and write up the results of the two projects and give a final presentation based on their independent project. Students should expect to work three or more hours each week outside of class to prepare, troubleshoot and collect data for their experiments.

Week	Discussion	Readings for the week	Lab	Due
1	Aug 21. Exp. design. Intro. to project 1.	Measuring Behavior Ch. 1-3	Aug 22. Investigate organisms, develop hypothesis and predictions.	
2	Aug 28. Start project 1.	Chapters 4, 5	Aug 29. Data collection for project 1.	Experimental design project 1
3	Sept 4. Labor Day – no class	Chapter 6	Sept 5. Data collection for project 1. Peer review.	Draft of methods project 1.
4	Sept 11. Considerations of research design	Chapter 7	Sept 12. Data collection for project 1. Distribute grading rubric for manuscript	
5	Sept 18. Data collection	Chapter 8	Sept 19. Data collection for project 1.	Draft of introduction project 1.
6	Sept 25. Data analysis and statistics	Chapter 9, 10	Sept 26. Computer stats lab for project 1. Brief lecture on stats – comparing means, looking for relationships via correlation and regression, ANOVA, t-test, Chi-Square	
7	Oct 2. Work on presentations; how to present findings	Chapter 11	Oct 3. Group presentations for project 1.	Draft of results project 1.
8	Oct 9. Readings for project 2.		Oct 10. Develop hypotheses and predictions, design project 2. Peer review.	Final manuscript project 1.
9	Oct 16. Readings for project 2.		Oct 17. Data collection for project 2.	
10	Oct 23. Data collection project 2.		Oct 24. Data collection for project 2.	Draft methods for project 2

11	Oct 30. Data collection for project 2.		Oct 31. Data collection for project 2.	
12	Nov 6. Data collection project 2.		Nov 7. Data collection for project 2.	Draft intro for project 2
13	Nov 13. Data collection project 2.		Nov 14. Computer stats lab for project 2	
14	Nov 20. Fall break		Nov 21. Fall break	
15	Nov 27. Work on presentation		Nov 28. Group presentations for project 2. Lab clean up.	Draft results for project 2.
16	Dec 4. Work on final report.		Dec 5. Final report for project 2 due.	Final manuscript project 2

Assignments

Assignments are due at the beginning of class on the date marked on the syllabus. Failure to do so will result in a one letter grade reduction in the assigned grade for every day it is overdue. When it has been overdue for one week, a zero will be given.

Re-grading policy

If you believe that an exam or assignment has been graded incorrectly, submit a written request for a re-grade to the instructor within one week of when the graded exam or homework was returned. The written request should include an explanation of your position and be attached to the graded exam. If you suspect that a simple addition error has been made, speak to the instructor to have the error corrected.

Credit/No-credit policy

To receive credit for this course if you enrolled on the pass/fail basis, you must 1) show up and turn in all assignments or 2) receive the equivalent of a D or higher in this class.

Academic integrity

If you cheat or plagiarize, the university guidelines for disciplinary action will be followed. Any cheating or plagiarism will be reported to the Dean of Students and will result in failure of this course. *You may not use ChatGPT or other online software for generating your written assignments.* For more information on UIUC policies, see http://www.admin.illinois.edu/policy/code/article_1/a1_1-401.html

Attendance policy

Students are expected to attend each class session and attendance is part of your participation / discussion grade.

Accommodations

We encourage students with disabilities to meet with us at the beginning of the semester to discuss any needs. Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) may arrange accommodations with the Division of Disability Resources and Educational Services. See www.disability.illinois.edu

If you have serious questions or concerns about your performance in this class due to extenuating circumstances, please talk to us as early as possible. We will always try to accommodate a student with a demonstrated desire and willingness to learn.

If you are interested in obtaining information to improve writing, study skills, time management or organization, the following campus resources are available to all students:

Writer's Workshop, Undergrad Library, 217-333-8796

<http://www.cws.illinois.edu/workshop>

<http://disability.illinois.edu/strategies>

<http://www.counselingcenter.illinois.edu/self-help-brochures/>

Most college offices and academic deans provide academic skills support and assistance for academically related and personal problems. Links to the appropriate college contact can be found by going to this website and selecting your college or school:

illinois.edu/colleges/colleges.html

If you are experiencing symptoms of anxiety or depression or are feeling overwhelmed, stressed, or in crisis, you can seek help through the following campus resources:

[The Counseling Center](#) offers a 24-hour Crisis Line, mental health services and online support:

<https://counselingcenter.illinois.edu/>

The university has a [wellness website](#) with links to services and resources:

<https://wellness.illinois.edu/>

McKinley Health Education offers individual consultations for students interested in learning relaxation and other stress/time management skills, call 333-2714.