

BIOL 3420 Animal Behavior, Fall 2023

Syllabus

Dr. Troy Murphy

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Office: CSI 416

Office hours:

Wed 11:30-12:30pm; Fri 11:30-1:30pm

Additional hours: by appointment

Lecture & lab schedule

Lecture: MWF 10:30-11:20 am, CSI 437

Lab: M or W 12:30-3:20 pm, CSI 402

Course webpage

http://www.finchwrangler.com/Troy_Murphy/3420.html

Course schedule, all handouts, non-text readings, and other course documents will be posted on the course webpage.

Required texts

--Animal Behavior, 12th Edition, Rubenstein and Alcock

--Exploring Animal Behavior: Readings from American Scientist, Sherman and Alcock, 6th Edition

Additional course readings

Selected journal articles will be posted as PDFs on the course webpage.

My teaching philosophy

I am here to help you to develop skills that will assist you in learning throughout your academic and professional careers. To that end, please feel free to ask questions inside or outside of class if there is something you don't understand or that you want to explore. My goal is to provide a supportive community for your learning.

My office hours

It is best to talk to me during my scheduled office hours. Here, I can give you my undivided attention and I will work with you one-on-one to solve problems and help you to better understand material or assignments. If you cannot make it during office hours, you may schedule an appointment in advance (although please note that my schedule is generally full 24hrs ahead).

Course objectives

This course will investigate both evolutionary and proximate aspects of animal behavior. Using the logical framework of the "four levels of analysis", we will cover: 1) the adaptive value of specific behaviors and the role of natural selection in maintaining behaviors; 2) how behaviors have evolved over time; 3) how behaviors develop within an individual; and 4) the neural, hormonal, and physiological mechanisms underlying behaviors. Lectures will cover a variety of topics, including: natural selection and evolution; genes and the environment; animal learning and cognition; hormones and their role in mediating behavior; neural mechanisms; foraging behavior; predator-prey interactions; sexual selection; animal communication; courtship and mate choice; and social behavior. In addition to lectures, we will develop skills to understand and interpret primary literature, which will be facilitated through group-discussions of journal articles. The laboratory will focus on developing skills of hypo-deductive inquiry,

and on the design, implementation, and analysis of experiments that will be carried out in the laboratory and field. As part of the laboratory, students will develop a sophisticated and in-depth review of the literature focusing on a specific topic of animal behavior, culminating in a final paper and a presentation to the class. 3 class hours and 3 laboratory hours a week for one semester.

Learning Outcomes:

- 1) Understand the evolutionary pressures that have given rise to behavioral responses, especially in contexts of social interactions;
- 2) Understand biological mechanisms (underlying causes of behavior, such as physiology) and ontogeny of behavior;
- 3) Understand the scientific method, how it is used to test hypotheses, create predictions, and create experimental approaches;
- 4) Understand how to critically evaluate scientific literature and dissect and interpret results;
- 5) Understand how to analyze data and make relevant interpretations;
- 6) Understand how to search the literature and produce a synthetic review on a topic focused on evolution or mechanisms of behavior.

Written Communication Learning Outcomes:

- 1) write a sustained academic work with appropriate use of evidence and developed reasoning to support an argument.
- 2) improve their writing in response to feedback.
- 3) craft prose that conforms to the conventions of the relevant discipline.

There are three components to the course: (1) lectures, (2) discussions, (3) labs.

(1) Lectures

You will be introduced to the current areas of research in the field of animal behavior through a series of lectures that follow from the Alcock text.

Expectations

- Read assigned chapters and papers before lecture.
- Take unannounced quizzes that will cover material from readings.
- Take three exams plus a cumulative final exam.

(2) Discussions

You will read and discuss primary journal articles. The success of the discussions rests on your ability to digest and comprehend the topics presented by the papers. In turn, your ability to comprehend the material is related not only to your having read the material beforehand, but to how well you are able to explain these concepts and communicate your thoughts and opinions with others. Therefore, the success of this portion of the course really depends on your willingness and ability to discuss the issues at hand. Discussions are most productive when multiple, differing, points of view are presented. Keep in mind that some people take longer than others to verbalize their thoughts, so if you find yourself doing most of the talking, it may be best to see whether others have something to add. Also, be sure to treat other students, and their ideas, with respect.

Expectations

- Read *and think about* assigned paper(s) before class.
- Take unannounced quizzes that will cover material from readings.
- Contribute to the discussion by asking questions and tossing around ideas.

(3) Labs

You will conduct various mini-projects using live animals that will address the mechanisms and adaptive value of animal behavior. You will also use lab periods to work on, or to present, your literature review.

Expectations

--Work in teams to collect data on lab projects, turn in lab reports, and present results from lab projects in oral presentations.

--Work in teams to write an in-depth literature-review, and present a PPT, on a subject of your choice in animal behavior, providing an ARGUMENT that strings through the review. Your will present a thoughtful and sophisticated review that covers background and current knowledge on the topic. **MAKE SURE TO READ THE LITERATURE REVIEW GUIDELINES POSTED ON THE COURSE WEBPAGE.**

Grading breakdown

45% Three exams (15% ea)

15% Cumulative final exam

10% Participation in lecture, discussions, and lab

5% Assignments, quizzes

20% Research paper (broken down: 5% outlines, 10% drafts, 5% quality of comments you give on peer-review, 80% final version)

5% PowerPoint presentation

Grading scale

A 90-100%

B 80-89%

C 70-79%

D 60-69%

F <60%

Plus and minus will be assigned to final grade depending on the final score.

Exams

Exams will emphasize comprehension of concepts in animal behavior, as covered in lecture and assigned readings. A variety of question formats may be used – including multiple choice, matching, short answer, and essay – to test your ability to synthesize and apply this information to novel situations.

See course schedule (online) for dates of exams

Academic Support

The very best students seek out help when necessary. The following resources are in place to support your academic success:

[Academic Success](#): time management, student skills, test anxiety, note taking, tutoring

[Career Services](#): major exploration, career guidance

[Counseling Services](#): mental health concerns, mental health referrals

[Quantitative Reasoning and Skills Center](#): quantitatively demanding coursework

[Student Accessibility Services](#): accommodations for a diagnosed disability

[Wellness Center](#): nutrition, sleep, stress management

[Writing Center](#): starting a paper, finding a thesis, drafting and editing

Attendance and absence policy

--In the lectures: I will not match the lecture material exactly to the text and I will use different examples from the literature and incorporate material from other sources, so you will want to hear it to be prepared for exams.

--In the discussions: you will be graded on participation. Missed discussions result in a zero-participation score for that day.

--In the labs: you cannot collect data if you miss a lab, so making up a missed lab is impossible. Furthermore, you will be graded on participation.

Please let me know as soon as possible if you will be missing lecture, discussions, or lab. Assignments missed due to absences cannot be made up unless you provide an excuse before class. In most cases, grades on late work will be reduced by 10% per day that they are late. Makeup exams will only be provided in exceptional cases, and makeup exams are mainly essay-based.

Excused Absences

For the duration of the COVID-19 pandemic, the following exception to the Excused Absences from Class policy has been approved: Students who are ill will be excused from classes.

To protect community health, we urge students to request an excused absence by informing instructors of the illness via email. Students must adhere to University health and wellness procedures for self-evaluation, follow-up, and quarantine as necessary. Please note: Untruthful student claims about illness may be regarded as a violation of the Academic Honor Code, which prohibits “falsification of academic records.”

Students who experience a family emergency that interferes with academic performance are encouraged to contact Dr. Jennifer Henderson, Interim Associate Vice President for Academic Affairs, and Demetrius Brown, Dean of Students.

Cheating & plagiarism (an unfortunate addition)

I take fairness, honesty, and responsibility very seriously. Be advised that I have a variety of electronic methods at my disposal to detect cheating and plagiarism. Just don't do it—we will all be happier.

Remember that you are to follow the Academic Honor Code

All students are covered by a policy that prohibits dishonesty in academic work. Under the Honor Code, a faculty member will (or a student may) report an alleged violation to the Academic Honor Council. It is the task of the Council to investigate, adjudicate, and assign a punishment within certain guidelines if a violation has been verified. **Students are required to pledge all written work that is submitted for a grade: “On my honor, I have neither given nor received any unauthorized assistance on this work” and their signature. The pledge may be abbreviated “pledged” with a signature.**

Please note that you **MUST** cite ALL of the material in your submitted work that is not your own. This is especially relevant for your literature review paper. Also note that when you work in collaboration with a student during lab projects, you are required to specify the parts of your assignments which were done in-full or in-part by others.

Any materials created by your instructor to enhance or assess your learning in this class (including but not limited to examinations, exam keys, problem sets, lecture slides, and clicker questions) are proprietary materials that may not be shared with anyone without prior authorization from the instructor. Sharing these documents in any way is a violation of the Trinity University Honor Code and infractions will be

reported to the Honor Council. The sale or donation of these materials to any organization that, as a business or community service, provides study aids is included in this policy. This includes providing materials to such organizations over the internet. Further, the illicit use of materials obtained from such organizations or individuals is also a violation of the Honor Code and will be reported to the Honor Council. In addition, examinations, exam keys, problem sets, lecture slides, and clicker questions are intellectual property governed by copyright laws. Sharing these materials without authorization is a violation of these laws. Obtaining such materials is also a violation of copyright laws as well as Trinity's Honor Code.

Note to students with disabilities

If you have a documented disability and will need accommodations in this class, I expect that you will deliver your accommodation letter to me during my office hours early in the semester so we can discuss how I might prepare to meet your needs. Please make these arrangements with me as soon as possible once you have met with the SAS Coordinator and have picked up your accommodation letters. All discussions will remain confidential. If you have not already registered with Student Accessibility Services, contact the office at 999-7411 or SAS@trinity.edu. You must be registered with SAS before I can provide accommodations.

Courtesy

Please show common courtesy: (1) Be prepared for class and arrive on time, (2) Avoid conversations with others during class, (3) Limit food and beverages to those that can be consumed quietly, (4) Turn off cell phones before class.

Note that the use of laptops for notetaking is acceptable; HOWEVER, there should be no surfing, chatting, email checking, snapchatting, etc. during class.

Title IX/Sexual Misconduct Reporting

As a Responsible Employee who is committed to creating an environment where every member of our community can thrive, I want to let you know that I am a Mandatory Reporter. What that means is that I am required to report any instances of sexual misconduct, including sexual harassment, non-consensual sexual intercourse, non-consensual sexual contact, sexual exploitation, intimate partner violence, stalking, and related retaliation that I am aware of to the Title IX Coordinator. So, if you share information with me about any incidents that implicate the Sexual Misconduct or Anti-Harassment Policies, I am required to report all information to the Title IX Coordinator to make sure you have information about support resources and complaint resolution options. My report does not initiate the complaint process, and you are in control over how you choose to engage with our Title IX Coordinator. If you or someone you know has experienced sexual misconduct, including sexual harassment, I encourage you to share this information directly with the Title IX Coordinator or one of the individuals who has been designated as a confidential resource on campus. Information about reporting is available here: [Reporting](#).

Electronic Recordings of Course Instruction

Please be aware that all classroom instruction, including student participation in classroom activities, is subject to recording and dissemination on the University's secure course management system (T-Learn). The recordings will be made available only to students enrolled in the course to facilitate online learning and review. Students are expressly prohibited from capturing or copying classroom recordings by any means; violations will be subject to disciplinary action. Instructors who wish to use a recording outside of class must obtain the written consent of any students who are personally identifiable in the recording.

Policy Regarding the Disruption of Class

The *Courses of Study Bulletin* authorizes faculty to remove disruptive students from the class roster.

[Policy Regarding Disruption of Class](#): “Students will not be permitted to behave in such a manner as to disrupt the orderly conduct of classroom activities. When such behavior occurs, it is the responsibility of the instructor to discuss the matter with the student involved, warning the student that continuation of such behavior may result in dismissal from the class. If the behavior continues, the faculty member may drop the student from the class. ...”

The University regards the safety of students, faculty, and staff as a paramount concern. To ensure that all members of the University community work in tandem to create a safe learning environment, students are required to observe University health protocols (which at present includes wearing masks and gathering in groups with fewer than 50 others when indoors). Failure to observe University health protocols will be considered a disruption of orderly conduct. In accordance with the Policy Regarding Disruption of Class, the instructor will issue a warning to the student; if the student continues to disrupt the class by failing to observe University health protocols, the instructor may drop the student from the class roster.

University Health Protocols

To ensure that all members of the University community work in tandem to create a safe learning environment, the University [Policy on Protective Behavior](#) requires that the following health and safety protocols be observed on campus at all times until otherwise officially altered by the University:

- Students, regardless of vaccination status, must wear a mask indoors and outdoors when safe distancing is not possible.
- Personal hygiene and proper cough/sneeze etiquette must be followed

Failure to observe University health protocols will be considered a disruption of orderly conduct. In accordance with the Policy Regarding Disruption of Class, the instructor will issue a warning to the student; if the student continues to disrupt the class by failing to observe University health protocols, the instructor may drop the student from the class roster.