



SYLLABUS

Freshman Writing Seminar: Hello, it's me: exploring peculiar ways animals communicate

Instructor

Derrick J. Thrasher
Office: W343 Seeley G. Mudd Hall
Department of Neurobiology and Behavior
djt224@cornell.edu

Office Hours

Tuesday 2:00-3:20 pm
Or by appointment!

Meeting Times & Location

Tuesday & Thursday, 10:10-11:25 am
Location: Corson-Mudd W364



The Mantis Shrimp has 16 photoreceptors in its eyes and can detect circularly polarized light, which is great for communicating with another mantis shrimp!

Course Description

Have you ever wondered why peacocks possess such an ornate display? Did you know that several moth species can communicate across many miles, as if by magic? Animals have evolved many unique signals to accomplish one of the most important tasks when communicating: to convey information. In this course, we will investigate primary communication modalities: visual, auditory, and chemical. We will identify peculiar signals that animals use to “talk” with one another and address their evolution. This will be accomplished using 1) primary and secondary scientific literature and 2) popular accounts of scientific research, including press releases, multimedia, and texts by well-known biologists. Writing assignments will focus on developing efficient synthesis and critiquing skills, effectively communicating science to all audiences, and constructing a research proposal.

Course Rationale

This course is designed to give you an introduction to animal communication, with a focus on theory and empirical data from a range of primary and secondary scientific literature. You will discover how/why animals communicate, the unique signals that are used across the animal kingdom, and the evolutionary processes that drive the evolution of signals and animal communication systems. However, this is first-and-foremost a writing course, and you will explore your knowledge of animal communication, and the steps of the scientific method, through a series of applicable writing assignments! These assignments will span a number of diverse writing styles, but will all apply a scientific angle, ranging from narratives of “field” observations to popular science writing, as well as grant writing.

Learning Outcomes

Students will demonstrate competency in their writing through:

- Appropriate use of language, theses, and evidence in a variety of written styles, including scientific writing, popular prose, and argumentative writing;
- Effective use of preparatory writing strategies and revision techniques, such as drafting an outline, peer review, and proof-reading;
- Appropriate use and citation of sources in various writing styles; and
- Use of writing to clarify thinking and understanding of complex ideas.

Students will demonstrate an ability to engage in scientific discourse by:

- Extracting key information from primary literature without being overwhelmed by details;



- Explaining how observation and discovery fuel the scientific process
- Critically discuss scientific topics using empirical data and theory to support ideas/ points-of-view
- Understanding and interpreting primary scientific literature creatively to make it available to the broader community
- Synthesizing a wide range of scientific material to construct a formal grant proposal

Assignment Guidelines

- All work to be completed in a Word-Processing platform (preferably Microsoft Word or something similar)
- All work should be in 12 pt. Times New Roman font and double-spaced.
- All documents should have 1-inch margins on all sides.
- Pages should be numbered.
- Your name, assignment name/number, date of submission, and essay title should occur at the top of the first page.
- Be sure to proofread and spellcheck each assignment. DO NOT rely solely on your word processing program's spellcheck and grammar functions.
- Submit your first drafts via Blackboard. Submit final drafts via TurnItIn in Blackboard.

Individual Conferences

Each student will be required to meet with me at least twice over the course of the semester. The first of these meetings will occur early in the semester to identify each student's strengths and weaknesses in writing, and to set goals for the semester. The second conference will be near the end of the semester to reflect on how your writing has improved and what you continue to struggle with. The purpose of these meetings is not an evaluation, but rather an opportunity for both of us to talk about course material and your performance in a focused and personalized manner. In addition to these conferences, you are more than welcome to schedule additional meetings to discuss your writing, performance in the class or anything else you might like to chat about!

Grading Policy

Assignments

Mini Assignments (in-class writing prompts, reading responses, prep writing): 15% of final grade

First drafts: 20% of final grade

Final drafts: 50% of final grade

Final draft will not be accepted if a first draft is not received by the assigned deadline!

Class Participation

Discussion, peer-editing, and activities: 15% of final grade

Letter grades will be assigned as follows:

98% - 100% A+

93% - 97% A

90% - 92% A-

88% - 89% B+

83% - 87% B

80% - 82% B-

78% - 79% C+

73% - 77% C

70% - 72% C-

60% - 69% D

below 60% F



Course Policies

1. **Attendance:** Come to class. Regular attendance is expected and will help your performance in this class. You may miss up to two class sessions before affecting your class participation grade, which will be deducted by 10% for each additional day missed. Please arrive on time. Failure to do so on a regular basis will incur deductions to your participation grade.
2. **Assignment Deadlines:** Turn in assignments by **11:59 pm on day of the deadline**. I will give you one "grace day" during the semester that you can use to extend any assignment deadline by 24 hours. The grade on any additional late assignments will be deducted by 15% for each day after the deadline, up to 2 days. **Mini assignments are due on Blackboard by the beginning of class on the assigned deadline.** Late mini assignments will not be accepted.
3. **Participation:** Ask questions! Seeking clarification for an idea or identifying unfamiliar words are legitimate questions, do not wait until the end of the class hoping to figure them out. If I am covering material too quickly or not explaining things well, stop me!
4. **Meetings:** When in doubt, talk to me. Come to office hours or schedule a time with me and we will sort out whatever might be holding you back. I will schedule two one-on-one conferences with each student during the semester (reminders in class).
5. **Electronics:** Avoid using electronic devices (cell phones, laptops, tablets, etc.) in class unless it is part of a specified class activity. Unless circumstances suggest otherwise (e.g., emergency situations), you should not be sending or reading text messages, making or receiving phone calls, or using electronic devices for anything other than a learning aid in class.
6. **Stress:** If you are experiencing unusual personal or academic stress at any time, please seek support as soon as possible. I can talk with you about stresses related to this course, and I can direct you to campus resources including the Learning Strategies Center (<http://lsc.cornell.edu>) and counseling services at Gannett Clinic (www.health.cornell.edu).
7. **University Policies:** I respect and uphold University policies and regulations pertaining to the observation of religious holidays; assistance available to the physically handicapped, visually and/or hearing-impaired student; plagiarism; sexual harassment; and racial or ethnic discrimination. All students are advised to become familiar with the respective University regulations and are encouraged to bring any questions or concerns to my attention.
8. **Additional Help with Writing: The Knight Institute Writing Walk-In Service-** The Writing Walk-In Service (WWIS) provides support for individuals at any stage of the writing process. It is a free resource available to everyone on campus - faculty, staff, graduate and undergraduate students - for nearly any kind of writing project: applications, presentations, lab reports, essays, papers, and more. Tutors (trained undergraduate and graduate students) serve as responsive listeners and readers who can address questions about the writing process or about particular pieces of writing. They can also consider questions of confidence, critical reading, analytic thought, and imagination. Many writing tutors also have experience working with non-native speakers of English. The WWIS operates out of several campus locations. During the academic year, the WWIS is open Sunday through Thursday from 3:30 – 5:30pm and from 7:00 – 10:00pm. Writers can schedule appointments or drop in at a convenient time. For more information or to schedule an appointment: <http://www.arts.cornell.edu/writing>.
9. **Plagiarism:** Each student in this course is expected to abide by the Cornell University Code of Academic Integrity. Any work submitted by a student in this course for academic credit **MUST** be the student's own work. You may not buy or sell material for this course. If I suspect that the written work you submit is not your own, I will check your paper for similarity to other published documents and look for overlap between your paper and its sources using licensed software called TurnItIn. If there is evidence of plagiarism, I must immediately report you to my supervisors. The procedures that follow



are out of my hands and are listed in the code of academic integrity (found here: <http://cuinfo.cornell.edu/Academic/AIC.html>). If you ever have any questions about how to cite work or use quotations appropriately, please ask me; I will be happy to help you with this.

The semester schedule at a glance: (Last Modified: 13 April 2018)

Week	Topic	Assignments
Jan 25	Introduction & Class Overview	
Jan 30 – Feb 1	Communication Basics & Field Observations	
Feb 6 – 8	Writing Tools & Peer Review	Assignment 1 draft due Feb 8
Feb 13 – 15	Acoustic Communication I (Sound Production)	Assignment 1 rev. due Feb 15
Feb 20	NO CLASS – FEBRUARY BREAK	
Feb 22	Acoustic Communication II (Signals)	Assignment 1 final due Feb 27
Feb 27 – Mar 1	Scientific databases & reading science articles	
Mar 6 – 8	Visual Communication (Light & Eye Evolution)	Assignment 2 final due Mar 11
Mar 13 – 15	Composing Critiques (Endler 1993)	
Mar 20 – 22	Visual Communication II (Signals)	Assignment 3 draft due Mar 27
Mar 27 – 29	Peer Review & Chemical Communication I	
Apr 3 - 5	NO CLASS – SPRING BREAK	
Apr 10 – 12	Chem. Comm. II & Popular Science Writing	Assignment 3 final due April 12
Apr 17 – 19	Short Range Modalities	Assignment 4 draft due Apr 19
Apr 24 – 26	Grant Proposal Writing & Comm. Systems	Assignment 4 final due Apr 26
May 1 – 3	Peculiar Communication Systems	
May 8	Wrap-up!	Assignment 5 draft due May 8
May 14 – 22	Exam Period	Assignment 5 final due May 21

* Student conferences will be scheduled during shaded weeks