

BISP 194 Syllabus Summer 2023

Animal Behavior: Sensory Worlds

Description: Animals occupy remarkably diverse sensory worlds that are shaped by and shape their lifestyles and the ecological niches that they occupy. This course will use these different sensory worlds as a major theme for understanding Animal Behavior, covering, in brief, Behavioral Neurobiology, Behavioral Endocrinology, Behavioral Genetics, Learning, and Animal Communication. Student discussions during lectures is emphasized. Grades will be based upon attendance, discussion, and a final presentation held during class time during the final class.

This course will be taught remotely via Zoom and will use the UC San Diego Canvas website. All lectures, discussions, and student presentations will be shared and posted on this website.

Please note: this syllabus is subject to change. Any schedule changes will be posted on the course website. Make sure to frequently check the website to keep updated.

Overall Learning Goals

I am excited that you will be learning about the fascinating field of Animal Behavior and. The course is somewhat unusual in that it is a synthesis of traditional topics in Animal Behavior with a strong emphasis on mechanism and biophysics. I have the following learning goals for you.

- 1) **One of my goals is to encourage interaction and engagement.**
- 2) Understand some of the amazing ways in which animal behavior and communication has evolved.
- 3) Learn how to analyze questions on multiple levels, on both the proximate (here and now) and ultimate (evolutionary) levels.
- 4) Be able to look at an animal behavior that you encounter, not only the ones that we discuss in this course, but any animal behavior, and form hypotheses and experiments as a scientist would. Why is the animal doing this? How can I answer my question? What are the appropriate control experiments?
- 5) Understand the constraints that shape animal communication in the acoustic, visual, and olfactory domains.
- 6) Years from now, I hope that you will retain an appreciation of the excitement and concepts that have arisen in the quest to understand the amazing behavior of animals. Above all, I hope that this course will expand your own horizons, giving you a sense of what it is like to live in different sensory worlds, and an admiration of the solutions that evolution has tailored.

Grading

Grading is on a fixed percentage scale, not on a curve. Grading on a curve forces you to compete with your classmates. I believe you should be rewarded for your own achievements, not upon how many people have lower or higher grades. In addition, grading with a fixed percentage allows you to have performance criteria that are specific, explicit, and clear. Each percentage shown is the **lowest** percentage corresponding to a letter grade.

I understand this is a challenging time and that you may have challenges with accessing the course material and perhaps taking the quizzes and exams online. My goals are to teach you the course material, fairly test your knowledge of this material, and grade you accordingly, while keeping these challenges in mind.

A+	≥96.66%
A	93.33%
A-	90.00%
B+	86.66%
B	83.33%
B-	80.00%
C+	76.66%
C	73.33%
C-	70.00%
D	<70.00% is a D (there is no D+ or D-)
F	<60.00% is an F

Your final grade is based upon the following:

- 1) Attendance = 36%
- 2) Class Participation = 36%
- 3) Final presentation = 28%

The course meets over 5 weeks. I will drop your lowest 2 attendance scores. I will also drop your lowest 2 participation scores. To take part in the Zoom meeting, you will need to register via Zoom by providing your name and email. You should only need to register once. Zoom will then keep track of your attendance. You must attend at least 50% of a lecture for your attendance to count. [Zoom tracks the total amount of time you are in a lecture](#). Readings for each week are available on Canvas everyone is expected to carefully read the readings and participate in class discussions. Students will also work in small groups to research a specific topic, chosen in consultation with the instructor, and present their findings to the class.

Given the current size of the course, students will form groups of 5 individuals and each group will prepare a 10 min final presentation to be given during the last day of class. This means that each student will be expected to speak and present for about 2 min.

Accommodations

Students requesting accommodations and services due to a disability for this course need to provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD), prior to eligibility for requests. Receipt of AFAs in advance is necessary for appropriate planning for the provision of reasonable accommodations. ***Please note that I am unable to provide any accommodations unless they are first authorized by OSD.*** For more information, contact the OSD at (858) 534-4382 (voice), osd@ucsd.edu, or visit osd.ucsd.edu.

Course Time Conflicts

You **should not** enroll in this course and course(s) that meet at the same day and time. If you do so, you will have a final exam time and date conflict and you will be unable to attend all the lectures. I realize that the situation is now somewhat different given online lecture delivery and saved videos of these lectures, but I would like to encourage live, active participation in the course, and this will be difficult if you take another course scheduled at the same times. You are only able to take the final exam for BIEB 166 at the date and time determined by the registrar. If a conflict arises, you will not be able to take the exam for BIEB 166.

If you have multiple final exams on the same day as the final exam for this course, you will not be able to take your final exam at a different day or time. There is an **incorrect belief** that an instructor **must** provide an alternative exam time if a student has three or more final exams on the same day. **This is not true.** Please be responsible in scheduling your courses to ensure that such situations do not arise.

What you need to buy

You do not need to buy any books or course readers for this course! All of the assigned readings, lecture notes, and lecture slides are available online for you to read and download on the course website. All lecture notes, lectures slides, and lecture movies can be accessed from home, if you have the correct software and setup a **VPN client**. Please check the campus website for current instructions. If you cannot access these materials, please use a campus computer.

Academic Misconduct Policy

Students are expected to do their own work, as outlined in the UCSD Policy on Academic Integrity. **Academic misconduct** is broadly defined as any prohibited and dishonest means to receive course credit, a higher grade, or avoid a lower grade. Academic misconduct misrepresents your knowledge and abilities, which undermines the instructor's ability to determine how well you're doing in the course. **Such cheating will not be tolerated, and I will fail any student caught engaging in academic dishonesty and report the case to the UCSD Academic Integrity Review Board. Punishment for cheating is severe, including possible suspension.** Please do not risk your future by cheating.

The course website

The course will be using web-learning software called "Canvas". Your USERID and Password for your UCSD email account should work. However, if you are a recent transfer student or do not yet have a UCSD email account, please contact ITS (<https://students.ucsd.edu/campus-services/technology/help.html>). **PLEASE CHECK THE COURSE WEBSITE FREQUENTLY!** All of the **READINGS** are available through this site and can be downloaded as PDF files or viewed directly on the web. **Exam keys** and **grades** are also on the website. As a backup, all course material is also available on our official UCSD Google Drive site. The link to this backup site will be directly emailed to you and is also available from the IAs.

Podcasting

All lectures and reviews are video podcast and available in Canvas You can listen and view them using your Internet browser or download them for later access. I have enabled computer generated captioning for these videos since it may be somewhat helpful. However, please note that this has multiple computer generated errors. You can turn the captions **off** when viewing the videos. **Please note that only the material that is written in the lecture notes and**

readings and that is spoken by the instructor during the lectures is accurate, and you will only be tested on this material.

All class meetings will be video and audio recorded and available on the Canvas website.

Movies (online video)

All movies shown in the course, with the exception of some short visual examples illustrating sound effects, are available online as Quicktime video files that you can download. **Not all videos on this website may be shown, so please check lectures to see what was actually presented. It is best to view the videos in the context of the lecture podcast since if you view the videos out of context, it will be more difficult to understand the concept(s) being illustrated.** Please note that viewing movies online (or, indeed, just watching the lecture video podcasts) is not a substitute for attending class because you are able to ask questions and benefit from the classroom setting.

EDI & PRINCIPLES OF COMMUNITY

Diversity and equity statement

It is important for us to make sure that how we teach this course and how we accommodate different student needs reflects the differences of race, ability, sexual orientation, age, and gender identity that enrich our classroom experience and campus. If you have any concerns related to diversity and equity in the course, please contact the instructor.

UC San Diego Principles of Community (<https://ucsd.edu/about/principles.html>)

As we continue to confront the senseless killings of Breonna Taylor, Ahmaud Arbery, George Floyd and many others, we would like to remind everyone of UC San Diego's Principles of Community. Our campus consists of diverse communities, and we acknowledge that our society carries biases based upon race, ethnicity, sex, gender, and multiple other dimensions. We reject acts of discrimination based on race, ethnicity, sex, gender identity, age, disability, sexual orientation, religion, and political beliefs and will confront and appropriately respond to such acts. We also affirm the right to freedom of expression and promote the open expression of our individuality and diversity within the bounds of respect, courtesy, confidentiality, and sensitivity. Above all, we are committed to the highest standards of civility and decency for everyone because we are supporting and promoting a community in which all people can work and learn together in an atmosphere free of demeaning or abusive treatment. If you have any concerns about what you have experienced in this course, please contact the instructor and/or consider using the resources given below.

Discrimination and harassment

The Office for the Prevention of Harassment & Discrimination (OPHD) aids students, faculty, and staff regarding reports of bias, harassment, and discrimination. OPHD is the UC San Diego Title IX office. Title IX of the Education Amendments of 1972 is the federal law that prohibits sex discrimination in educational institutions that are recipients of federal funds. Students have the right to an educational environment that is free from harassment and discrimination.

Students have options for reporting incidents of sexual violence and sexual harassment. Sexual violence includes sexual assault, dating violence, domestic violence, and stalking. Information about reporting options may be obtained at OPHD at 858-534-8298, ophd@ucsd.edu, or <http://ophd.ucsd.edu>. Students may receive confidential assistance at CARE at the Sexual Assault Resource Center at 858-534-5793, sarc@ucsd.edu, or <http://care.ucsd.edu>, or Counseling and Psychological Services (CAPS) at 858-534-3755 or <http://caps.ucsd.edu>.

Students may feel more comfortable discussing their particular concern with a trusted employee. This may be a student affairs staff member, a faculty member, a department chair, or other university official. These individuals have an obligation to report incidents of sexual violence and sexual harassment to OPHD. This does not necessarily mean that a formal complaint will be filed.

If you find yourself in an uncomfortable situation, ask for help. The university is committed to upholding policies regarding nondiscrimination, sexual violence, and sexual harassment.

**STUDENT RESOURCES
ACADEMIC SUPPORT**

Geisel Library	Research tools and eReserves
Content Tutoring with the Teaching + Learning Commons	Drop-in and online tutoring through the Academic Achievement Hub
Writing Hub Services in the Teaching + Learning Commons	Improve writing skills and connect with a peer writing mentor
Learning Strategies Tutoring	Address learning challenges with a metacognitive approach
OASIS	Intellectual and personal development support
Student Success Coaching Program	Peer mentor program that provides students with information, resources, and support in meeting their goals
Academic Integrity	Policy on Academic Integrity of Scholarship and strategies to excel with integrity
Technical Support	Assistance with accounts, network, and technical issues

STUDENT RESOURCES

Basic Needs	Provides access to food, housing, and financial resources
Counseling and Psychological Services (CAPS)	Provides services like confidential counseling and consultations for psychiatric services and mental health programming
Community Centers	As part of the Office of Equity, Diversity, and Inclusion the campus community centers provide programs and resources for students and contribute toward the evolution of a socially just campus

Office for Students with Disabilities	Documents student disabilities, provides accessibility resources, and reasonable accommodations
Triton Concern Line	Report students of concern at (858) 246-1111
Office of the Ombuds	The Office of the Ombuds provides a confidential, safe space for students, staff, and faculty to talk about concerns and problem-solve issues arising from interpersonal and group conflict.

DISCRIMINATION AND HARASSMENT

The University of California, in accordance with applicable federal and state laws and university policies, does not discriminate on the basis of race, color, national origin, religion, sex, gender, gender identity, gender expression, pregnancy (including pregnancy, childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition, genetic information, ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (including membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services). The university also prohibits harassment based on these protected categories, including sexual harassment, as well as sexual assault, domestic violence, dating violence, and stalking. The nondiscrimination policy covers admission, access, and treatment in university programs and activities.

If students have questions about student-related nondiscrimination policies or concerns about possible discrimination or harassment, they should contact the **Office for the Prevention of Harassment & Discrimination (OPHD)** at (858) 534-8298, <https://ophd.ucsd.edu/>, or <http://ophd.ucsd.edu/report-bias/index.html>

Campus policies provide for a prompt and effective response to student complaints. This response may include alternative resolution procedures or formal investigation. Students will be informed about complaint resolution options. A student who chooses not to report may still contact CARE at the Sexual Assault Resource Center for more information, emotional support, individual and group counseling, and/or assistance with obtaining a medical exam. For off-campus support services, a student may contact the Center for Community Solutions. Other confidential resources on campus include Counseling and Psychological Services, Office of the Ombuds, and Student Health Services.

CARE at the Sexual Assault Resource Center: 858.534.5793 | sarc@ucsd.edu | <https://care.ucsd.edu>

Counseling and Psychological Services (CAPS): 858.534.3755 | <https://caps.ucsd.edu>

CAMPUS SAFETY REQUIREMENTS AND EXPECTATIONS

Keeping our campus healthy takes all of us. You are expected to follow the [campus safety requirements](#) and pursue personal protection practices to protect yourself and the others around you.

PRIVACY PRACTICES IN THIS COURSE

This course is a community built on trust; as a learning community, we are collectively responsible for upholding privacy protections. In order to create a community built on trust and the most effective learning experience, our interactions, discussions, and course activities must remain private and free from external intrusion. We have obligations to each other to preserve privacy and cultivate fearless inquiry. We respect the individual dignity of all and will refrain from actions that diminish others' ability to learn.

As your instructor, I am committed to protecting your privacy by only using university-approved course technologies and adhering to the Family Educational Rights and Privacy Act (FERPA) [link to your location's FERPA notice] and Campus Privacy Office guidelines. This includes using your educational data only as allowed by FERPA, for example, for legitimate educational purposes such as submitting your final grades to the registrar's office. Communications in this course are subject to the [UC Principles of Community](#) and the [Electronic Communications Policy](#).

Please note the following privacy practices for our course:

Course platform. This course uses Canvas, which collects information about your engagement with course materials. I will review this information periodically to ensure students are engaged and look for signs of students falling behind. I will also review this information in case of academic misconduct allegations, if relevant.

Online/video classes. Regarding video-conferencing, while I ask, to the extent you are comfortable and able, that you keep your videos on during lessons to aid in the development of our learning community, I also understand that may not always be possible. Know that you will not be penalized for choosing to disable your video during synchronous course sessions. You are welcome to use an appropriate virtual background if you do not want to have your surroundings visible. Be mindful of others who may not wish to be visible or recorded in the background.

You may use your name or a pseudonym on Zoom that complies with our Principles of Community (see above). Students with an official FERPA block on directory information with the registrar are not required to use their name or camera during online classes.

If I do record our class, I will give everyone notice prior to the recording, so that you may turn off your video should you not wish to be recorded.

Using learning materials. Course materials (videos, assignments, problem sets, etc.) are for use in this course only. You may not upload them to external sites, share with students outside of this course, or post them for public commentary without my written permission. We will not pin or take screenshots of fellow classmates or record sessions during synchronous online sessions or share discussion thread posts from the learning management system unless granted explicit permission to do so. Unauthorized sharing or uploading to exam questions, test answers, or summaries of exams is prohibited.

Using live class recordings. We are recording class meetings to support remote students and to provide everyone in the class with useful study aids. These recordings will be available for review through our learning management system. Students are prohibited from recording the class themselves unless a student has an approved academic accommodation for such

recording. The university strictly prohibits anyone from duplicating, downloading, or sharing live class recordings with anyone outside of this course, for any reason.

Sharing student information. You may work on group projects with other students or be asked to review or respond to their work. Other materials and activities may provoke debate, argument, or spirited discussion; some of us may volunteer sensitive personal information. Do not share others' personal information, including class dialogue or performance, on sensitive topics outside of our course community. Student work, discussion posts, and all other forms of student information related to this course should be handled with respect and remain within interactions of this course. You may publicly post your own work, provided it does not violate academic dishonesty policies or show responses to assessments; public posting of group work requires consent from all group members. Research conducted as part of a class is subject to UC research policies and may include sensitive information. Students may not share research information without permission from the instructor.

Sharing course information with others. Do not post images or identifiable conversations that occur in class to social media or to those beyond our learning community. Sharing private information about our course community (including discussions, activities, presentations, student work, etc.) with others for the purpose of inviting external attention, intrusion, ridicule, or harassment is an egregious breach of trust. Violating these principles will be handled according to the [link to applicable academic honor code].

If you have concerns after reviewing these privacy practices, I invite you to reach out to the instructor.

BISP 194 Syllabus

Animal Behavior: Sensory Worlds

Please note: information in this syllabus is **SUBJECT TO CHANGE**. Any schedule changes will be posted on the course website and announced in lecture. Make sure to frequently check the website to keep updated.

READINGS

ALL READINGS ARE **REQUIRED**, UNLESS THEY ARE LABELED “**OPTIONAL**,” PLEASE CHECK WHAT IS LISTED FOR EACH LECTURE. We provide optional readings so that you can enrich your own understanding of these topics, if you choose.

Lecture readings: These readings are available in the course book or you can download them from the course website.

CONTACT INFORMATION & OFFICE HOURS

Instructor: James C. Nieh

Office hours are held online, see website

Office: 858 822-5010

Email: jnieh@ucsd.edu

Office Hours: Please see the course website site for details

- July 6 Lecture 1: Course Overview & History of Ethology
Lecture 1 REQUIRED reading (see course website for these readings)
- July 11 Lecture 2: The four questions of Tinbergen: Classical Ethology part I
Lecture 2 REQUIRED reading
- July 13 Lecture 3: Classical Ethology part II
Lecture 3 REQUIRED reading
- July 18 Lecture 4: Foundations of Behavioral Neurobiology.
Lecture 4 REQUIRED reading
- July 20 Lecture 5: Behavioral Endocrinology.
Lecture 5 REQUIRED reading
- July 25 Lecture 6: Genetics & Learning I
Lecture 6 REQUIRED reading
- July 27 Lecture 7: Learning II
Lecture 7 REQUIRED reading
- Aug 1 Lecture 8: Imprinting
Lecture 8 REQUIRED reading
- Aug 3 Final class presentations (please see grading for details).**

Bedtime Reading

If you would like to learn more about certain topics, I recommend:

- Alcock, J. 1988. *The Kookaburra's Song*. Tucson: University of Arizona Press.
- Cronin, H. 1991. *The Ant and the Peacock*. Cambridge: Press Syndicate of the University of Cambridge.
- Dethier, V. 1962. *To Know a Fly*. San Francisco: Holden-Day.
- Diamond, J. 1992. *The Third Chimpanzee*. New York: Harper Collins.
- Evans, H.E. 1966. *Life on a Little Known Planet*. New York: E.P. Dutton & Co., Inc.
- Goodall, J. 1990. *Through a Window: My Thirty Years with the Chimpanzees of Gombe*. Boston: Houghton Mifflin.
- Grandin, T. 1995. *Thinking in Pictures*. New York: Vintage.
- Griffin, D. 2001 *Animal Minds*. Chicago: University of Chicago Press.
- Tinbergen, N. 1969. *Curious Naturalists*. New York: Anchor Books.
- Ryan, M. 1985. *The Tungara Frog*. Chicago: University of Chicago Press.
- von Frisch, K. 1967. *The Dance Language and Orientation of Bees*. Cambridge: Harvard University Press.
- Wilson, E.O. 1994. *Naturalist*. Washington, D.C.: Island Press.