

BIPN145 Neurobiology Laboratory

Winter 2021

Synchronous (Live) Discussions/Lecture: Tuesdays 9:30 – 10:50 AM

Asynchronous: Prerecorded Thursday lectures (see BIPN145 Course Roadmap, pg. 2)

Synchronous (Live) Lab Sessions: Tuesdays and Thursdays 11:30 AM - 2 PM

Instructor: Dr. Monica Chu (mwchu@ucsd.edu)

Dr. Chu's Office hours: Thursdays 10:30 – 11:30 AM

Instructional Assistants:

Mary Alarcon (m1alarco@ucsd.edu)

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BIPN145 Course learning objectives:

- **Evaluate** neural data from various organisms
- **Apply** principles of neural communication to multiple model systems
- **Describe** the breadth of techniques in neuroscience and the experimental questions they are suited to answer
- **Communicate** research to peers as well as a broader audience

Course Website:

All materials for the class will be uploaded on Canvas (<https://canvas.ucsd.edu/>).

The lecture slides, important announcements, online quizzes, and exams will be posted here, so please make sure to check the website everyday for important information.

Computer and Internet Access: You will need to have internet access as well as access to a computer in order to view the lectures and to complete assignments and exams. If you are having difficulty accessing a computer, please email the Office of Student Affairs at: vcsa@ucsd.edu.

Struggling to stay engaged with remote learning?:

Check out the strategies recommended by the Teaching + Learning hub at UCSD. <https://digitallearning.ucsd.edu/learners/learning-remotely/strategies.html#Stay-engaged>

They also offer a canvas course as well as one-on-one appointments with learning strategists to help you improve your learning and studying strategies: <https://digitallearning.ucsd.edu/learners/learning-remotely/strategies.html#Get-personalized-help-with-Remo>

Course Components:

Synchronous Tuesday Lectures/Discussions.

Tuesday Lectures/Discussions will take place on Zoom. Attendance and participation during these live zoom lectures is highly encouraged. You are encouraged to turn on video and you must have at least a working microphone on when you are attending lectures as group activities will also take place during this time. If you have an extenuating circumstance (for example, if you are in a different time zone, have child care responsibilities during this time, etc) feel free to contact Dr. Chu and we will work to accommodate you with an alternative activity during this time.

Asynchronous Thursday Lectures

Thursday lectures are asynchronous. You may watch the Thursday lectures at the scheduled lecture time on Thursday, or you can choose to watch it the day before on Wednesdays. (They will be uploaded on Wednesday mornings). They will cover material that is useful for the Thursday labs, so it is highly encouraged that you watch the Thursday lectures on time.

Synchronous Lab Sessions on Tuesdays and Thursdays

Lab sessions will occur on Tues and Thurs from 11:30 – 2 PM. You will work together in lab groups on lab activities during this time and teaching staff are present to provide guidance. *(If necessary, your lab group may complete the activities at an alternate scheduled time, but note that teaching staff will not be available to help if you decide to meet during alternate hours.)*

Course Textbook:

There is no required textbook for this course. We'll have some assigned reading from Purves et al. (2018) Neuroscience as well as Carter & Shieh (2015) Guide to Research Techniques in Neuroscience, which are available on the BIPN145 Canvas page.

Software and Computing:

Microsoft Office: We will be accessing and editing documents with Microsoft Office for this course (Powerpoint, Word, and Excel)

LabChart Reader: Download LabChart Reader on your personal computer [here](#).

Spike Recorder: Download Spike Recorder on your personal computer [here](#)

Datahub access: We will be using Datahub for coding and analysis. Check to make sure you can login at <http://datahub.ucsd.edu>.

Click here to view the BIN145 Course Roadmap:

https://canvas.ucsd.edu/courses/21548/files/3086412?module_item_id=682538

Lecture, Lab, Quiz and Assignments schedule

This is the tentative schedule-It is subject to change, so be sure to check Canvas for assignment due date

Grading:

Lab Reports (300 pts): There are 3 lab reports (100 pts each) that you will write based on your own collected data as well as data from experiments performed by previous BIPN145 students.

Take Home Exams (150 pts): There are two take-home exams (A midterm and a final, 75 pts each) These are open-book canvas quizzes that you will complete individually in one sitting with a time limit.

Assignments (295 pts): There are discussion activities, smaller lab write-ups, and quizzes that are worth between 5-30 pts. The smaller lab write-ups serve as practice to familiarize you with how to write a complete lab report.

Grant proposal (250 pts): You will be working (with your lab group) to design your own neuroscience experiment. With your group members, you will brainstorm an interesting experimental question that you'd like to address, and put together a grant proposal that will be submitted towards the end of the quarter:

- **Project Sketch (25 pts):** A worksheet you fill out so that the teaching staff can provide feedback on your proposed idea.
- **Written Proposal (75 pts):** A two-page proposal about your experiments that will allow the teaching staff to provide more feedback before your group presentation.
- **Presentation (150 pts):** You and your group members will put together a 5 minute video about your proposed experiment to share with your classmates.

Professionalism (5 pts): In this lab course, you will be working with your group members as a contributing member on a team. We expect that you be respectful to yourself and your peers, and to come to virtual discussions/lectures and lab sessions and communicate with your peers with a professional attitude and effort. Your actions in the class will be taken into consideration by the IAs and instructor when calculating the final grade. If you behave unprofessionally, points will be docked.

***Late exams or quizzes: No credit will be given for missed quizzes or exams.**

***Late Written assignments (such as Lab reports)** that are submitted late will have 10% deducted for anything handed in within 24 hours of the deadline, and an additional 10% for every 24 hours after that.

***Final letter grade assignments:**

%		%		%		%	
A+	97-100	B+	87-89.99	C+	77-79.99	D	60-69.99
A	93-96.99	B	83-86.99	C	73-76.99	F	<60
A-	90-92.99	B-	80-82.99	C-	70-72.99		

Academic Integrity:

We hold you, as students in UCSD community, to the highest standards of academic integrity. Cheating has severe consequences here at UCSD. Whether you are working on an online assignment or an in-class exam, we expect you to demonstrate trust in your own intellect and respect for yourself and your fellow students. This means that you will pledge not to engage in academically dishonest activities, such as plagiarizing, cheating, or copying work or engaging with others to complete work that you should be completing on your own. We also expect that you do not facilitate other students in engaging in academically dishonest activities. **Note that all open response answers on assignments, lab reports, and quizzes will be checked for plagiarism using Turn-it-in.**

If you observe or hear about cheating in this course, we encourage you to take action and report it anonymously here: <https://academicintegrity.ucsd.edu/take-action/report-cheating/index.html>

All course materials are copyrights and are the property of the instructor, the course, and the University of California, San Diego and may not be posted online, submitted to private or public repositories, or distributed to unauthorized people outside of the course. Any suspected instances of a breach of academic integrity will be reported to the Academic Integrity Office for review. Websites (ex. Coursehero) are regularly checked for content uploads and any student found uploading copyrighted content to these websites will be reported.

Student Support Offices and Programs:

We care about you at UC San Diego, and there is always help available.

There are many resources at UCSD which support and celebrate our diverse community on the UCSD campus. There are also resources that may be especially helpful to you during these difficult times, and I highly encourage you to check them out:

Diversity Community Resource Centers:(diversity.ucsd.edu/centers-resources/community-centers)

Counseling and Psychological Services (858.534.3755 | caps.ucsd.edu)

Student Health Services (858-534-3300 | studenthealth.ucsd.edu)

CARE at the Sexual Assault Resource Center (858-534-5793 | care.ucsd.edu)

Undocumented Student Services Center (858-822-6916 | students.ucsd.edu/sponsor/undoc)

Student Veterans Resource Center (SVRC) (858-534-5080 | students.ucsd.edu/sponsor/veterans)

The Hub Basic Needs Center (858-246-2632 | basicneeds.ucsd.edu)

Triton Food Pantry (858-534-5694 | basicneeds.ucsd.edu/food-security/pantry)