Syllabus

Neuroscience Practical Laboratory (NEUR 206-02)

Spring 2025

T, 12:30 – 1:45pm, ISC306

Instructor: Tara Sweet

Email: tsweet@geneseo.edu

Office: ISC360, Monday and Wednesday 10:30-11:20 and by appointment

Platform for assignments, grading, and feedback: Brightspace

Course Description: This course introduces students to basic laboratory equipment, techniques, and computer software. Students will also participate in activities designed to strengthen their ability to test theories using laboratory techniques.

Each week students will participate in a different activity where they will: 1) review literature relevant to a particular research skill, 2) participate in a laboratory or computer exercise designed to teach application of that skill and, 3) demonstrate their competence in, and understanding of, that skill.

Learning Outcomes:
- To gain hands-on experience designing, conducting, analyzing and reporting a research experiment
- Become competent in execution of basic laboratory safety and techniques
- Gain a basic understanding of selected laboratory methods and equipment used in Neuroscience research
- Gain an understanding of how to analyze data and present a project summary

Course Requirements: Students will design a class experiment at the beginning of the course and develop relevant skills and collect data across the course. Participation and completion of activities is required. **These activities may involve an animal model. Please let me know ASAP of any allergies, issues, concerns. Also, you need a spiral lab book! It can be a 50 cent spiral notebook.**

Text: There is no assigned text for this course. Instead, students will complete assigned readings relevant to their laboratory activities. Readings will be made available on Brightspace or in our shared class google folder*.*

Assignments: All assignments are due in Brightspace by Monday at 11:59pm of the assigned week.

Note: Technology is rapidly changing; in some ways online and artificial intelligence (AI) tools have outpaced the skills of students and professors. One such tool is ChatGPT. Students should be aware that using AI for assignments a gray area for the honor code, and the AI may make significant mistakes. But not to learn to use AI in your work may also be a mistake. If you do choose to use an AI system, please try to use an open software platform and please cite the program as follows:

[Who created it] ([year created]). [program name]: Version [version number]. [URL]
With each square bracketed piece of information replaced

For example: OpenAI. (2021). ChatGPT: Version 3.5. https://chat.openai.com

Failure to do so is academic misrepresentation.

Course Requirement Point Summary

- Preparation and participation in lab activities and assignment submission (10 x 12pts): 120pts
- Quizzes: 10pts
- Final Poster: 25pts
- In Class Presentation: 25pts
- Total Possible: 180 total possible points

Note: It is your job to produce useable materials and collect usable data. If I cannot use your materials or data, you will have points deducted accordingly. If I have to throw out your materials or data entirely, your course grade will be no higher than a C. Also, these are not your materials or data to present or use outside of this class without permission. Any unauthorized use of data will be considered plagiarism.

Attendance: Attendance and participation are required. You can miss 2 classes without an excuse. A grade of E will be given for 3 or more misses.

The Grading Scale:

The grading scale for this course is the following:
- A: 93%–100%
- A–:   90%–92%
- B+:   87%–89%
- B: 83%–86%
- B–:   80%–82%
- C+:   77%–79%
- C: 73%–76%
- C–:   70%–72%
- D: 60%–69%
- E: <59%

Important Dates:
Spring 2025
    Jan 21 – First day of classes
    Jan 27 – End of drop/add period
    Feb 25 – Diversity day, No Classes
    Mar 15-22 – Spring Break, No Classes
    Apr 23 – Great Day, No Classes
    May 07 – last day of classes

Tentative schedule:

Week	Date	Topic
1	1/21/25	Introductions – Lab Safety
2	1/28/25	Manipulating bacteria – pouring plates
3	2/4/25	Manipulating bacteria – transforming bacteria
4	2/11/25	Manipulating bacteria – purifying DNA
5	2/18/25	Culturing cells – tissue culture room training
6	2/25/25	**NO CLASS – DIVERSITY SUMMIT**
7	3/4/25	Culturing cells – splitting/counting cells
8	3/11/25	Culturing cells – transfecting cells
9	3/18/25	**NO CLASS – SPRING BREAK**
10	3/25/25	Assay – introduction to plate reader
11	4/1/25	Assay – planning controls
12	4/8/25	Assay – testing controls
13	4/15/25	Assay – testing transfecting cells (and controls)
14	4/22/25	**NO CLASS – GREAT DAY instead.**
15	4/29/25	Presentations
16	5/6/25	**NO CLASS**

Academic Integrity and Plagiarism

Geneseo's Library offers frequent workshops to help students understand how to paraphrase, quote, and cite outside sources properly. These sessions are meant to educate about the importance of using original ideas and language, and how to incorporate paraphrases and quotes into writing. The complete list of library workshops can be found at www.geneseo.edu/library/library-workshops.

Academic dishonesty includes cheating, knowingly providing false information, plagiarizing, and any other form of academic misrepresentation. In this course, consequences of a first offense are a zero (0) on the relevant assignment or exam. Consequences of a second offense are a failing grade (E) overall in the course. For the college's fully policy, see: https://www.geneseo.edu/handbook/academic-dishonesty-policy

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Academic Support Services

The campus provides a range of support services to help students thrive in their classes. These services include:

- Tutoring, both drop-in and by-appointment, with student tutors in the Writing Learning Center (https://www.geneseo.edu/english/writing_center), the Math Learning Center (https://www.geneseo.edu/math/mlc), and a range of department-based tutoring centers
- Online tutoring through the SUNY-wide STAR-NY system (www.starny.org/tutoring_schedule)
- Supplemental Instruction (https://www.geneseo.edu/supplemental-instruction), in which trained student assistants review lecture material from specific classes

Information on times and locations is available through the Campus Learning Centers website at https://www.geneseo.edu/academic-support-services.

Additionally, the college offers a number of peer mentoring programs that are designed to reinforce good academic habits. These include:

- Academic Peer Mentors in the Office of Academic Planning and Advising provide students with promising study strategies and can host on-going appointments with students seeking an "accountability buddy". More information is available at https://www.geneseo.edu/dean_office/academic-peer-mentors-0.
- The ONYX Academic Success workshop series sponsored by the GOLD Leadership Program introduces students to a variety of study skills, time management techniques, and instruction on how to access campus resources for academic and career guidance. A full list of GOLD workshops can be accessed at https://www.geneseo.edu/gold/app/browse.

Accessibility

SUNY Geneseo is dedicated to providing an equitable and inclusive educational experience for all students. The Office of Accessibility will coordinate reasonable accommodations for persons with physical, emotional, or cognitive disabilities to ensure equal access to academic programs, activities, and services at Geneseo. Students with letters of accommodation should submit a letter to each faculty member and discuss their needs at the beginning of each semester. Please contact the Office of Accessibility Services for questions related to access and accommodations.

Office of Accessibility Services
Erwin Hall 22
(585) 245-5112
access@geneseo.edu
www.geneseo.edu/accessibility-office

Library Research Help

Fraser Hall Library has an award-winning staff trained in finding the best information using library resources and advanced search strategies. Students may ask questions about using library services, locating materials, or conducting research projects. There is a librarian who specializes in the subject

matter for each major. Librarians meet with students through a variety of ways, including chat, email, and in-person and virtual one-on-one research consultations.

Max Sparkman (he/him), our dedicated Social Sciences Librarian, is here to assist you at any stage of your research journey. Whether you're selecting a topic, finding credible sources, or navigating the intricacies of citations, Max can provide the guidance and support you need. Don't hesitate to reach out and take advantage of this valuable resource to enhance your research skills and ensure your projects are a success. To meet with Max, you can schedule an appointment online or in-person via the Meet with a Librarian page, or if you don't see a time that works for you, email him at csparkman@geneseo.edu.

Technology Support

CIT provides a range of technology support resources.   When you are in Canvas, the Help menu on the left side of the screen will also direct you to a number of CIT supports, including self help resources and options to request technology assistance. For assistance with your computer or mobile device, visit the CIT HelpDesk in Fraser. Geneseo students, faculty and staff have free access to the entire LinkedIn Learning training library (over 7,500 courses, including tutorials for software, digital tools, web development, programming, and design) through Geneseo's site license. For more information, visit this self help document. (https://wiki.geneseo.edu/display/cit/LinkedIn+Learning+Training+Library).

Getting Help with Online Classes

CIT has developed a number of resources that can help you formulate good strategies for success in online courses. These include general strategies for keeping on track with your courses as well as more specific resources about learning experiences that you may encounter in an online course. The Office of the Dean for Academic Planning and Advising has also introduced the new KOALA (Knights Online Academic Learning Assistance) course support resource. Throughout the semester, if you need help with online learning strategies, or you are having difficulty understanding how to work your way through Canvas modules for face-to-face as well as online classes, you can contact KOALA for assistance identifying resources and strategies for success. Schedule a KOALA appointment.

Religious Observations and Class Attendance

New York State Education Law 224-a stipulates that "any student in an institution of higher education who is unable, because of [their] religious beliefs, to attend classes on a particular day or days shall, because of such absence on the particular day or days, be excused from any examination or any study or work requirements" (see https://www.geneseo.edu/apca/classroom-policies). SUNY Geneseo has a commitment to inclusion and belonging, and I want to stress my respect for the diverse identities and faith traditions of students in my class. If you anticipate an absence due to religious observations, please contact me as soon as possible in advance to discuss your needs and arrange make up plans. The New York State Department of Civil Service maintains a calendar of major religious observations for 2024.

Military Obligations and Class Attendance

Federal and New York State law requires institutions of higher education to provide an excused leave of absence from classes without penalty to students enrolled in the National Guard or armed forces reserves who are called to active duty. If you are called to active military duty and need to miss classes, please let me know and consult as soon as possible with the Dean of Students.

Bias-Related Incidents

"We are here to listen, to learn, to teach, to debate, to change, to grow. We should all be safe to pursue these goals at SUNY Geneseo while being who we are. Together, we commit ourselves to pluralism, cultivating a community that respects difference and promotes a sense of inclusion and belonging."

As this excerpt from our Community Commitment to Diversity, Equity, and Inclusion states, here at SUNY Geneseo, we want to provide a space where everyone feels welcome to learn and grow in their identities as well as in their role as students, faculty, and staff. If in the unfortunate instance you experience an incident of bias, we encourage you to reach out to the Chief Diversity Officer (routenberg@geneseo.edu), Director of Multicultural Programs and Services (seloievans@geneseo.edu), and/or our University Police Department. In trying to create an environment that facilitates growth through diverse thoughts and ideas, reporting incidents of bias - including threats, vandalism, and microaggressive behaviors - can help bring a better understanding of our campus climate as well as provide opportunities for learning and restoring harm.

Land Acknowledgment

Land acknowledgements are expressions of sorrow and remembrance to those whose historic territory one resides on. Geneseo resides on the homeland of the Seneca Nation of Indians and Tonawanda Seneca Nation. We encourage you to learn more about these original occupants and those indigenous to other places you have lived. You may consider using the Native Land app and/or websites such as sni.org to learn more about the community of more than 7,000 enrolled Indigenous Peoples.

PERSONAL HEALTH AND WELL-BEING

Well-Being

Prioritizing well-being can support the achievement of academic goals and alleviate stress. Eating nutritious foods, getting enough sleep, exercising, avoiding drugs and alcohol, maintaining healthy relationships, and building in time to relax all help promote a healthy lifestyle and general well-being.

The changes brought on by COVID-19 have impacted us all in a number of ways, and will continue to do so at various times and to varying degrees during the upcoming semester. Your health and wellbeing are foundational to your ability to learn, and if you find that you are feeling unwell (physically or mentally) and it is impacting your ability to complete your coursework, please reach out. In a similar way, I will occasionally ask for some patience and flexibility on your part. The pandemic is affecting faculty as well as students and creating demands that would not be present in an ordinary semester. If I am slow responding to an email, if I take some time to grade an assignment, if I am a bit late posting a video lecture, please be patient (and feel free to send me a 'nudge'; I will not be offended). You will never suffer any disadvantage in the course because of delays on my part. Remember that we are all in this together.

Concerns about academic performance, health situations, family health and wellness (including the loss of a loved one), interpersonal relationships and commitments, and other factors can contribute to stress. Students are strongly encouraged to communicate their needs to faculty and staff and seek support if they are experiencing unmanageable stress or are having difficulties with daily functioning. The Dean of Students (585-245-5706) can assist and provide direction to appropriate campus resources. For more information, see www.geneseo.edu/dean_students.

Mental Health

As a student, you may experience a range of challenges that can impact your mental health and thus impact your learning; common examples include increased anxiety, shifts in mood, strained relationships, difficulties related to substance use, trouble concentrating, and lack of motivation, among many others. These experiences may reduce your ability to participate fully in daily activities and affect your academic performance.

SUNY Geneseo offers free, confidential counseling for students through Student Health and Counseling, and seeking support for your mental health can be key to your success at college. You can learn more about the various mental health services available on campus www.geneseo.edu/health. To request a counseling appointment, please complete the online form through myhealth.geneseo.edu.

Attendance and Public Health

In the context of the COVID-19 pandemic, it is vital that we all do what we can to protect the health and safety of each other. If you are experiencing symptoms associated with COVID on a day that class meets in-person, do not attend. Remember that it is better to stay home if you are not feeling well than to attend class and risk spreading illness to others. Throughout the semester, please be proactive in communicating about absences and contact the Dean of Students if you expect to be out for an extended period of time.

Food Security for SUNY Geneseo Students

There are resources available for students who are food insecure. If you're unfamiliar with the phrase "food insecurity," you can learn more at the following link: Understanding Food Insecurity. (https://hungerandhealth.feedingamerica.org/understand-food-insecurity/)

The Food Security Advocates (FSA) is a student group run out of the Center for Community who support access to food for those who are food insecure (on campus and in the community). Food pantry interns facilitate an on campus pantry in collaboration with the local Geneseo Groveland Emergency Food Pantry.

Any student who is food insecure can submit a request here: Food Pantry Request Form (https://docs.google.com/forms/d/e/1FAIpQLSfFL6Vrdsv5kxTLd6yK_mXOL8NGeZtv5x8mzYAhHyiRJepLxA/viewform?usp=sf_link) to receive a bag of food that will provide them with items that will last a few days. Once submitted, interns will connect directly with the student to communicate next steps and the time and location of your pick up (most pickups will take place in the MacVittie College Union). This program will provide individuals with a bag of food up to two times a month. We will do our utmost to ensure anonymity, while also working to destigmatize food insecurity in our community.

Students are also able to access the Geneseo Groveland Emergency Food Pantry on their own if that is their preference. The pantry is open for walk-ins Tuesdays & Thursdays 10am - 2pm and Wednesdays 4 - 6:30. It is located at 31 Center Street, Geneseo, NY, lower level of Central Presbyterian Church. No appointment is necessary to access the pantry.

Emergency Funding

The college has two sources of emergency funding for students experiencing short-term financial crises. The Camiolo Student Emergency Loan Fund (SELF) provides short-term loans to students for situations both temporary and beyond their control. The SELF was established with the expectation that students who use the fund seek to "pay it forward" as soon as they are able by contributing to the fund so other students can be helped, too. While there is not a legal obligation, the donors hope that student loan recipients respect and honor the value of community and helping others in their time of crisis. The One Knight Student Aid Emergency Fund assists Geneseo students who are facing financial emergencies mainly related to the COVID-19 pandemic. The fund offers grants (one-time award) depending on a student's documented financial need. If you are experiencing financial hardship, please contact the Dean of Students (585-245-5706), who can assist and provide direction to appropriate campus resources.