NEUR 4698 — Audit research hours 3rd+year students
Neuroscience Undergraduate Research

Instructor
Joseph R Mendelson III
Section
NEUR XXXX - Men
Semester
Fall 2026
Academic Year
2026–2027
Course Description
Undergraduate research conducted under the guidance of a faculty mentor.

Course Learning Outcomes
Course learning outcomes depend on the student's specific involvement with the lab as different projects require different skills. Thus, not all the outcomes listed below are relevant to all students. We will discuss early in your involvement with the lab which of the following outcomes specifically apply to you.

- Communication
  - Uses and understands professional and discipline-specific language
  - Expresses ideas and communicates science in a written, graphical, and/or oral format in an organized, clear, and concise manner
- Creativity
  - Shows ability to approach problems from different perspectives and effectively connect multiple ideas, approaches, and disciplines
- Autonomy and Collaboration
  - Demonstrates an ability to work independently and identify when guidance is needed
  - Accepts constructive criticism and uses feedback effectively
  - Works collaboratively toward shared research goals
- Ability to Deal with Obstacles
  - Is not discouraged by setbacks or unforeseen events and perseveres when challenges are encountered
  - Troubleshoots problems and searches for ways to do things more effectively
  - Displays insights into the limits of their knowledge and an appreciation for what isn't known
- Practice & Process of Inquiry
  - Demonstrates ability to formulate questions and hypotheses both within student's discipline and using an inter-disciplinary approach
  - Shows understanding of how knowledge is generated, validated, and communicated within the discipline
  - Can design their project(s) and interpret their results in an explicitly evolutionary phylogenetic framework
- Project Knowledge and Skills
  - Displays knowledge of key facts and concepts
  - Displays a grasp of relevant methods and is clear about how these methods apply to the research project
  - Demonstrates an appropriate mastery of skills needed to conduct the project
- Ethical Conduct
  - Shows understanding of the importance of principles of Responsible Conduct of Research (RCR)
  - Shows respect to co-researchers, involved organisms, and the scientific process
  - Follows the APA Code of Ethics, Zoo Atlanta Scientific Review Committee, and IACUC in the treatment of human and nonhuman participants in the design, data collection, interpretation, and reporting of biological research and follow proper biosafety procedures

Required Course Materials
There are no required materials for working in this lab. Often times, research for this lab takes place at Zoo Atlanta. If you have questions or concerns about transportation, please let me know.

Student-Faculty Expectations

Faculty research mentors and students will discuss and agree on expectations before beginning an undergraduate research course. Expectations will include the student's weekly time commitment; methods and frequency of communication between the student and mentor(s); how research will be recorded, stored, and shared; and when and how students will reflect on their successes and challenges.

All students conducting neuroscience research at Georgia Tech are required to do the following:

- Join the Neuroscience Research Canvas Page
- Submit a Research Agreement signed by student and PI by the 6th week of each semester
- Submit a Research Reflection by the last day of class each semester
- Students in their final thesis semester must submit a signed Thesis Contract by the 6th week of the semester

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The Student-Faculty Expectations articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class. To support mutual respect and understanding between students and faculty, Georgia Tech faculty and students collectively adopted a list of student-faculty expectations. See the full Student-Faculty Expectations agreement here: https://catalog.gatech.edu/rules/22/

Grading Policy

Research grades will be determined based on student effort and communication throughout the semester. The signed Research Agreement will act as a guide in determining the final grade; however, students will not be penalized for not achieving goals due to circumstances beyond their control (e.g., experiment optimization, protocol approval delays, etc.). Grades for NEUR 2698 or 4698 will be assigned as V (visitor). Grades for 2699 and 4699 will be assigned a letter grade.

Attendance Policy

Undergraduate research students will participate in research activities on a weekly basis commensurate with registered credit hours and as discussed with faculty research mentors. Students earning audit hours are expected to commit approximately 3hr of lab-related work per audit hour agreed upon. This includes all in-person or remote lab work, meetings, readings, writing, and any other work that is directly related to the student's role in the lab.

Academic Honesty/Integrity Statement

Students are expected to maintain the highest standards of academic integrity. All work submitted must be original and properly cited. Plagiarism, cheating, or any form of academic dishonesty will result in immediate consequences as outlined in the university's academic honor code: https://policylibrary.gatech.edu/student-life/academic-honor-code

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Inclusivity & Diversity

In an ideal world, science would be objective. However, much of science is subjective and has historically been built by and with primary attention to a small subset of privileged voices. In our work, we will make an effort to read papers from a diverse group of scientists and stakeholders. We will acknowledge that it is possible that there may be both overt and covert biases in the materials we consider due to the lens through which they were written. Integrating a diverse set of experiences and acknowledging differing value systems and differing cultural norms is important for a more comprehensive understanding of conservation and science. Please contact me (personally or electronically) with concerns, or to bring suggestions to improve the quality of the science we do.

Furthermore, I strive to create a learning and working environment for our students that supports a diversity of thoughts, perspectives, and experiences, and honors your identities (including race, gender, class, sexuality, religion, and abilities). To help accomplish this:

• If you have a name and/or set of pronouns that differ from those that appear in your official records, please let me know.

• If you feel like your performance here is being impacted by your experiences outside of this research, please do not hesitate to come and talk with me. If you prefer to speak with someone outside of the course, your advisor or the Dean of Students office are excellent resources.
• We all are on a continuum of learning about diverse perspectives and identities. If a particular topic or something that was said in the context of this lab (by anyone) makes you feel uncomfortable, please talk to me about it. If you do not feel comfortable talking with me, for any reason, please speak with your Academic Advisor or with the Office of Student Affairs about your situation and your feelings.
• Much of science discourse, despite its aims of objectivity, is based on opinions or personal biases. In our lab, all opinions are valid, and students will be invited to deeply consider the opinions and values of a diversity of stakeholders.
• As a participant in lab and research discussions, you should strive to honor the diversity of your classmates.

Campus Resources
The Undergraduate Research Opportunities Program (UROP) provides resources and support for undergraduate research students and their mentors. Visit https://undergradresearch.gatech.edu/ or contact UROP at urop@gatech.edu for more information.