

PSYC8905: Special Problems in Cognitive Neuroscience
Section: TB
Credits: 1-3

Fall 2026

Instructor Information

Instructor: Thackery Brown
Email: tbrown338@gatech.edu

General Course Information

Special Problems in Cognitive Neuroscience serves as dedicated, supervised research time for doctoral students. Unlike traditional seminars, this course is highly individualized and designed to advance the student's independent programmatic research. Working under direct faculty supervision, students will engage in the hands-on execution of psychology and neuroscience, ranging from study design and IRB navigation to advanced data analysis and manuscript preparation. This course bridges the gap between theoretical coursework and the production of high-impact, professional scholarship in how the mind perceives, remembers, and interacts with its environment.

Course Learning Outcomes

Upon successful completion of this semester, you should be able to:

- **Formulate** and refine testable hypotheses that address meaningful theoretical or methodological gaps in the Cognitive psychology and Neuroscience literature.
- **Execute** critical phases of the empirical research process, which may include experimental design, psychometric validation, or neural data collection.
- **Apply** appropriate statistical or computational methods to analyze complex behavioral and neural data.
- **Navigate** the ethical and logistical requirements of human subjects research within the Institute.
- **Translate** raw scientific findings into professional deliverables, such as academic conference submissions, grant proposals, or journal-ready manuscripts.

Required Course Material

There is no required textbook for this course.

Grading Policy

Because this course functions as individualized research hours rather than a traditional seminar, your grade is not determined by a weighted point system or standardized exams. Instead, your evaluation is based holistically on your consistent progress, scientific independence, and the completion of agreed-upon research goals.

At the beginning of the semester, we will collaboratively outline the specific deliverables expected of you based on the current stage of your research (e.g., submitting an IRB protocol,

executing a data collection phase, running statistical analyses, or drafting a conference submission).

Your final grade will reflect:

- **Consistent Progress:** Steady, demonstrated momentum on your research project throughout the semester.
- **Professional Engagement:** Active participation, accountability, and preparedness in our weekly supervisory meetings and broader lab discussions.
- **Fulfillment of Deliverables:** The successful completion and overall quality of the specific research outputs we agreed upon at the start of the term.

Course Policies

Supervisory and Lab Meetings

Your "attendance" in this course is defined by your professional engagement with the lab. You are required to attend and actively contribute to all scheduled lab meetings and our 1-on-1 supervisory sessions. You are expected to treat these meetings as you would a professional project update: arrive prepared, bring your data/code, and clearly articulate both your progress and your roadblocks.

Scientific Independence and Accountability

Doctoral research is not about waiting for the next assignment; it is about taking ownership of the scientific process. You are the project manager for your research. It is your responsibility to anticipate administrative delays (like IRB review times), manage your data collection schedules, and proactively communicate if you need methodological support.

Professional Absences

Absences required for critical academic milestones, such as presenting at a conference, attending cross-institutional research meetings, or conducting field data collection, are expected and supported. If you need to miss a scheduled lab or supervisory meeting due to illness or a professional obligation, you must communicate this in advance and provide a written update on your weekly progress to ensure your project does not lose momentum.

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.

Student-Faculty Expectations Agreement

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

Campus Resources for Students

In your time at Georgia Tech, you may find yourself in need of support. Below you will find some resources to support you both as a student and as a person.

Academic support

- Center for Academic Success <http://success.gatech.edu>
 - 1-to-1 tutoring <http://success.gatech.edu/1-1-tutoring>
 - Peer-Led Undergraduate Study (PLUS) <http://success.gatech.edu/tutoring/plus>
 - Academic coaching <http://success.gatech.edu/coaching>
- Residence Life's Learning Assistance Program <https://housing.gatech.edu/learning-assistance-program>
 - Drop-in tutoring for many 1000 level courses
- OMED: Educational Services (<http://omed.gatech.edu/programs/academic-support>)
 - Group study sessions and tutoring programs
- Communication Center (<http://www.communicationcenter.gatech.edu>)
 - Individualized help with writing and multimedia projects
- Academic advisors for your major <http://advising.gatech.edu/>

Personal Support

Georgia Tech Resources

- The Office of the Dean of Students: <http://studentlife.gatech.edu/content/services>; 404-894-6367; Smithgall Student Services Building 2nd floor
 - You also may request assistance at https://gatech-advocate.symplicity.com/care_report/index.php/pid383662?
- Counseling Center: <http://counseling.gatech.edu>; 404-894-2575; Smithgall Student Services Building 2nd floor
 - Services include short-term individual counseling, group counseling, couples counseling, testing and assessment, referral services, and crisis intervention. Their website also includes links to state and national resources.
 - *Students in crisis may walk in during business hours (8am-5pm, Monday through Friday) or contact the counselor on call after hours at 404-894-2204.*
- Students' Temporary Assistance and Resources (STAR): <http://studentlife.gatech.edu/content/need-help>
 - Can assist with interview clothing, food, and housing needs.
- Stamps Health Services: <https://health.gatech.edu>; 404-894-1420
 - Primary care, pharmacy, women's health, psychiatry, immunization and allergy, health promotion, and nutrition
- Veteran's Resource Center: <http://veterans.gatech.edu/>; 404-385-2067
- Georgia Tech Police: 404-894-2500