

BIOS 4698 HAM - Undergraduate Research Assistantship: Syllabus

What is undergraduate research? Broadly, undergraduate research is a research, scholarly, or creative project conducted by an undergraduate student under the guidance of a faculty mentor that contributes new knowledge and/or discoveries to the broader professional community.

Why is undergraduate research important? Undergraduate research is a recognized high-impact practice and an important transformative learning experience for students. High-quality mentored research experiences build confidence, foster deeper understanding, and enhance personal and professional development.

Course Information

- Course Prefix, Number, and Name: BIOS 4698 Research Assistantship
- Instructor: Dr. Brian Hammer
- Section: HAM
- CRN: 86902
- Semester: Fall
- Academic Year: 2026

Course Description & Learning Outcomes

Undergraduate research is conducted under the guidance of a faculty mentor. This is an **audit-only** course; no grade will be assigned, and no tuition will be charged.

Course Learning Outcomes

Students will gain experience and practical training in modern approaches for biological research by working in my lab. The research you conduct will be guided by your me or their designee, who could be a postdoctoral fellow, graduate student, or technician in their research group. This is an audit only course; no grade will be assigned, and no tuition will be charged.

Students will conduct research in my research group to:

- Contribute to scientific research
- Develop research skills
- Summarize research plans and findings Supervision Structure

Required Course Materials

None.

Statement About Acceptable Student Conduct

- 1) The student will complete all required safety and ethical training to conduct the research. I will advise on necessary training modules to complete. I will also conduct an in-person lab safety tour before you begin working in that space.
- 2) The student works throughout the semester on their project with the following time expectations:
 - a) Fall / Spring semesters: 1 hour = 3 hr/wk.
 - b) Full Summer semester: 1 hour = 4.2 hr/wk.
 - c) Short Summer semester: 1 hour = 9 hr/wk.

- 3) The student brings work-stopping problems to the immediate research supervisor and/or PI as they arise rather than waiting.

Laboratory Safety Requirements

Georgia Tech has a strict policy regarding appropriate clothing in laboratories where chemicals and organisms are used or manipulated. Students not conforming to the following requirements will need to leave the lab to acquire appropriate clothing before returning. In the laboratory, students must wear

- Long pants.
- Close-toed shoes covering the sides and top of the foot.
- Lab coats (100% cotton, knee-length) when working at the bench.
- Safety glasses with side shields, worn over any prescription lenses or contacts.

Mentor-mentee expectations

Faculty research mentors and students should discuss and agree on expectations before beginning an undergraduate research course. Expectations should 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. 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 your PI and that they can 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

This is an audit only course; no grade will be assigned.

Attendance Policy

Undergraduate research students will typically participate in research activities on a weekly basis commensurate with registered hours and as discussed with faculty research mentors.

Academic Honesty/Integrity Statement

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. 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> Any student suspected of cheating, lying about course matters, stealing materials, plagiarizing, helping others commit a violation of the Honor Code or any form of academic dishonesty will be reported to the Office of Student Integrity, which will investigate the incident and identify the appropriate penalty for violations.

Note that plagiarism is the unattributed use of the words or ideas of others. Plagiarism includes reprinting the words of others without both the use of quotation marks and citation. As direct quotes are seldom used in scientific writing, you are expected to rephrase the words of others and provide the citation. Plagiarism will be referred to the Office of Student Integrity for adjudication. If you have any questions regarding plagiarism, please consult with the PI before you submit your work to the formal scrutiny of others, including the PI.

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; disabilityservices.gatech.edu) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me to set up a time to discuss your learning needs.

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.

Additional resources for Academic and Personal Support are here:

<https://students.gatech.edu/student-resource-guide>

Learning Environment

As members of the Georgia Tech community, we are committed to creating a learning environment in which all of our students feel safe and included. Because we are individuals with varying needs, I rely on your feedback to achieve this goal. To that end, I invite you to enter into dialogue with me about the things we can stop, start, or continue doing to make our research experience an environment in which every member feels valued and can engage actively in our community.

Adjusting your credit hours for this course

BIOS 4698 is a variable-hours (1-12) research-based course, where 1 enrolled hour = 45 hours of research time over a semester. Students typically enroll in 1, 2, or 3 hours, after discussion with their PI. Enrolling in the correct number of hours cannot be easily corrected after drop add ends. To adjust the number of hours go into the registration system Oscar, select "Schedule and Options." The number of hours is underlined in the "Hours" column. Click on the underlined number and update to appropriate hours.