RESEARCH AND INNOVATION

Undergraduate Research

Undergraduate research offers students a unique opportunity to apply knowledge in a meaningful, real-world context to solve problems and explore issues no one has ever addressed. Students doing undergraduate research have the chance to develop deeper relationships with faculty and graduate students and to expand their résumé that will allow them to stand out to graduate schools and potential employers.

The Undergraduate Research Opportunities Program (UROP) facilitates research experiences for undergraduates across all disciplines. UROP creates initiatives to encourage students to participate in knowledge creation and research enterprise with Georgia Tech's world-class faculty. Students may participate in laboratory, scientific, or computing research, or they may be involved in new discoveries in literature, social sciences, architecture, or business. Undergraduate students can participate in part-time or full-time research for course credit or pay. Opportunities are available Institute-wide, within specific colleges and schools, and in interdisciplinary settings.

Additional opportunities include the President's Undergraduate Research Awards (PURA), the Research Option, spring symposia, workshops, and training sessions. Students may also reach out to their peers, in the Undergraduate Research Ambassadors mentoring program, regarding any of the UROP programs or for assistance in finding research opportunities at Georgia Tech. More information is available on the Undergraduate Research web page.

The Research Option

The Research Option offers students the opportunity for an in-depth, long-term research experience that culminates in a final paper or thesis. While the exact requirements for a research option vary by the academic unit, students typically take the following steps:

1. Complete at least nine units of undergraduate research. At least six of the nine required hours should be on the same project. This research must be done with an approved Georgia Tech faculty member.
   a. Over at least two, preferably three, terms
   b. Research may be for either pay or credit (specific option plans differ by department).
      i. For research for-pay to count towards the Research Option, you must register for an audit-only class (2698 or 4698 in most but not all academic units).
2. Take the sequence of two one-hour courses:
   a. LMC 4701 (typically taken during the first or second term of research in order to help students complete their required proposal), and
   b. LMC 4702 (taken during the term in which the thesis is completed).
3. Write a research proposal and submit a signed copy by two faculty readers (one being the primary faculty mentor) to the UROP office. All proposals must be approved and submitted, at the latest, before the student takes LMC 4702 and their final term of research. We would prefer that you complete and submit the signed and approved proposal upon completion of LMC 4701.
4. Write an undergraduate thesis/report of research on their findings prior to graduation or upon completion of LMC 4702. This must be uploaded to the Georgia Tech online thesis database by the last day of finals of the students graduating semester.
5. Submit the Certification Form for their participating school into the Undergraduate Research Opportunities Program office prior to graduation. The forms may be found here. This form must be signed by two faculty readers (one being the primary faculty mentor), the undergraduate coordinator for the participating school, and the student.

For more information on specific plans and a list of participating schools, visit the Research Option web page.

Innovation and Entrepreneurship

Georgia Tech strongly encourages students to explore research and innovation in practical ways. The Student Innovation program (SIp) fosters growth by giving students the opportunity to engage with one another, faculty, and members of the wider global community involved in innovation. SIp collaborates with several on- and off-campus organizations and departments to coordinate campus-wide events, startup/innovation competitions, funding opportunities, coaching, mentorship, course instruction, targeted in-class presentations, incoming students and family presentations, and curriculum development.

SIp assists students in finding practical applications for their work and promotes the importance of moving research and innovation into society to solve the world's problems. The program personnel also advises several student organizations focused on enhancing the entrepreneurship ecosystem that currently exists at Georgia Tech.

This program coordinates the InVenture Prize, a faculty-led innovation competition for undergraduate students and recent BS graduates of Georgia Tech. This competition is one of the largest invention and startup competitions in the United States. It emboldens students with an entrepreneurial and inventive interest to apply their skills and see the world as endless opportunities. Students who participate in this program are provided with one-on-one mentors, coaching, and awards to encourage prototype development.

More information is available on the Student Innovation website.