

Introduction to Graduate Studies (Lecture)

Course Information

Course Prefix and Number: CS 7001 (Lecture)

Credit Hours: 3

Instructor: Kuldeep S. Meel

Course Description

Research tools including computer systems, as well as fundamental problem-solving skills, are introduced. Lectures on current computing research are presented and projects are required. Credit not allowed in a program of study for a graduate degree.

The Lecture section of CS 7001 covers foundational research tools and problem-solving skills for incoming PhD students. Lectures on current computing research are presented by faculty from across the School of Computer Science, exposing students to the breadth of research at Georgia Tech. Students are expected to engage critically with the material and participate in class discussions.

Course Learning Outcomes

By enrolling in this course, students will:

1. Acquire familiarity with key research tools and computing infrastructure used in doctoral research.
2. Develop foundational problem-solving skills relevant to graduate-level research.
3. Survey current research across multiple areas of computer science through faculty-led lectures.
4. Build the habits of scholarly engagement expected of PhD students at Georgia Tech.

Required Course Materials

No textbooks are required. Reading materials and project guidelines will be distributed via the course website or email as needed.

Grading Policy

This course is graded on a standard letter scale (A – F). Grades are based on two components:

- **Participation (30%):** Students are expected to attend all lectures and engage actively in class discussions. Participation is assessed on the basis of attendance, preparedness, and the quality of contributions to in-class discussion.
- **Mini-Projects (70%):** The 70% project component is divided across three mini-projects. Mini-Project 1 (approximately 10%) is a structured faculty interview: the student schedules and conducts an interview with a School of Computer Science faculty member (other than their PhD advisor), asking about the faculty member's research agenda, open problems, and research methodology. A written summary is submitted following the interview. Mini-Projects 2 and 3 (approximately 30% each) are research-focused projects, each running 4–5 weeks. Students work under the supervision of a participating faculty member on a well-scoped research task. These two projects may optionally be combined into a single longer-running project, subject to instructor approval, in which case the combined project is assessed at 60%.

Grades correspond to the following levels of performance:

- **A:** The student participated actively in all course activities, completed all mini-projects to a high standard, and demonstrated strong engagement with the research community.
- **B:** The student completed all required components satisfactorily but with some deficiencies in quality, depth, or timeliness.
- **C:** The student met minimum expectations but showed limited engagement or submitted work with substantial shortcomings.
- **D or below:** The student did not meet the expectations for satisfactory performance during the term.

Attendance Policy

Attendance at all lectures is required. Since participation constitutes 30% of the grade, absences will directly affect the course grade. Students who must miss a lecture should notify the instructor in advance.

Academic and Research Honesty/Integrity Statement

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review the [Student Code of Conduct](#) and the [Academic Honor Code](#), especially Appendix A: Graduate Addendum to the Academic Honor Code.

Students are expected to perform research in an ethical and responsible manner. All Doctoral and Master's Thesis students are required to take the Responsible Conduct of Research training, and it is expected that students abide by the principles taught in that training while performing research.

Any student suspected of cheating or plagiarizing on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Core IMPACTS

Not applicable

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the [Office of Disability Services](#) 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

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](#) articulates some basic expectations that you can have of me and that I have of you. Additional information for research-related work is given in The [Expectations of Advisors and Advisees](#). 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.