

Research Capstone Course

CS 4980 | Spring 2027

Course Information

Course prefix and number: CS 4980

Course name: Research Capstone

Instructor: Hyesoon Kim (hyesoon@cc.gatech.edu)

Semester and academic year: Spring 2027

Course Description

This course provides academic credit for an undergraduate research capstone project under the direction of a faculty member. Students undertake a defined research problem, apply appropriate technical and research methods, evaluate their results, and communicate their findings. The project scope, milestones, and deliverables are established by the student (or small group of students) in consultation with the instructor, consistent with registered credit hours.

Course Learning Outcomes

- Formulate a clear research problem, objectives, and project plan.
- Apply relevant background knowledge, research methods, and technical skills to investigate the problem.
- Document and critically evaluate research progress and results.
- Communicate the project approach, findings, limitations, and potential future work in written and oral form.

Required Course Materials

No textbooks or materials are required. Research resources are determined in consultation with the instructor. If a textbook or other material carrying an ISBN is assigned later, its full citation (including ISBN) will be provided.

Research Milestones and Deliverables

Specific milestones and deliverables will be agreed upon in writing with the instructor, based on project scope and registered credit hours. Typical deliverables include a research proposal or project plan, periodic progress updates, research artifacts or experimental results, a final technical report, and a final presentation or demonstration. Individual contributions must be identifiable for group projects.

Grading Policy

This course is graded on the standard letter scale (A–F). Final grades reflect a holistic evaluation of research effort, technical progress, quality and completeness of agreed deliverables, documentation, communication, and adherence to milestones. The instructor and student will document project-specific expectations; fixed percentage weights are not required.

- A: Meets or exceeds agreed capstone objectives and deliverables with strong technical execution and communication.

- B: Makes substantial progress and meets most expectations, with some deficiencies in deliverables or execution.
- C: Makes partial progress but has substantial deficiencies, including missed milestones or incomplete deliverables.
- D or F: Does not meet the expectations for satisfactory capstone performance.

Attendance Policy

This course does not include scheduled lecture meetings. The frequency and format of student–faculty contact are determined by mutual agreement and are consistent with registered credit hours. Students are expected to attend agreed project meetings and provide regular progress updates.

Additional Criteria for Successful Completion

Successful completion requires meeting agreed research objectives, maintaining appropriate engagement and communication, submitting documented milestones and final deliverables, and complying with applicable Georgia Tech academic and conduct policies.

Academic and Research Honesty/Integrity Statement

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to follow the Student Code of Conduct and Academic Honor Code. Research must be performed ethically and responsibly, including appropriate attribution, accurate reporting of methods and results, and responsible handling of data and research artifacts. Suspected academic misconduct will be handled through applicable Georgia Tech procedures, including the Office of Student Integrity; allegations of scholarly misconduct follow institutional procedures.

Student–Faculty Expectations Agreement

Students and instructors are expected to maintain mutual respect, responsibility, and clear communication. The Georgia Tech Student–Faculty Expectations Agreement and, where applicable, the Expectations of Advisors and Advisees provide additional guidance.

Office of Disability Services

Students requiring accommodations should contact the Office of Disability Services as soon as possible to discuss their needs and obtain an accommodations letter. Please also email the instructor to arrange a discussion of approved accommodations.