CS 8999 W13: Doctoral Thesis Preparation

Summer 2026

Georgia Institute of Technology

Instructor: Anqi Wu
Department: Dept/Computer Science
CRN: 55479
Course Format: Independent doctoral thesis preparation
Meeting Time/Location: By arrangement
Office Hours: By appointment
Email: awu36@gatech.edu

Catalog Description

Preparation for doctoral thesis research, including problem formulation, literature review, and development of a research plan.

Course Overview

This course supports doctoral students in preparing for dissertation research. Students will refine research questions, conduct in-depth literature reviews, and develop a rigorous research plan. The course emphasizes intellectual independence, critical thinking, and the development of impactful research directions.

Learning Objectives

By the end of the course, students are expected to:

- identify and articulate a significant research problem;
- develop a deep understanding of relevant literature;
- formulate a clear and feasible research plan;
- critically evaluate existing methods and approaches;
- communicate research ideas effectively.

Course Activities

Activities may include:

- literature review and synthesis;
- development of a research proposal or prospectus;
- preliminary experiments or pilot studies;
- regular meetings with the advisor;
- preparation for qualifying exams or thesis proposal milestones.

Expectations

Students are expected to:

- meet regularly with the advisor;
- define clear research goals and milestones;
- demonstrate consistent progress;
- take initiative in refining research ideas;
- incorporate feedback into iterative improvements.

Assessment

Evaluation is based on research preparation and progress:

- Problem formulation and significance: 25%
- Literature review and understanding: 25%
- Research plan development: 30%
- Communication and engagement: 20%

Deliverables

Deliverables may include:

- a written research proposal or prospectus;
- literature review documents;
- preliminary experimental or analytical results;
- oral presentation of research direction.

Specific deliverables will be determined in consultation with the advisor.

Attendance and Communication

There are no formal lectures. Regular meetings with the advisor are expected, along with consistent communication and progress updates.

Late Work

Timelines will be aligned with research milestones. Students are expected to communicate early regarding any delays.

Academic Integrity

All work must comply with the Georgia Tech Honor Code. Proper attribution of ideas, data, and prior work is required.

Accessibility and Student Support

Students requiring accommodations should contact the Office of Disability Services and notify the instructor early. Georgia Tech provides additional academic and wellness resources.

Institute Policies

All Georgia Tech policies regarding academic conduct, non-discrimination, accessibility, and student behavior apply.

Note: This syllabus provides general guidance for CS 8999. Specific expectations may vary depending on the student's research area and advisor requirements.