

## Syllabus, CEE 9000: Doctoral Thesis (Summer 2026)

Instructor: Dr. Danny Smyl  
Office Hours: By appointment  
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Course materials: Canvas  
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### About this course

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**Description:** CEE 9000 Doctoral Thesis provides PhD students with the opportunity to conduct independent research under the supervision of a faculty advisor and to prepare a written thesis presenting the results of that work. The course supports the development of research skills including literature review, problem formulation, methodology development, analysis, technical writing, and oral communication.

Students will work closely with their advisor to define a thesis topic, establish a research plan, carry out the proposed work, and prepare the final thesis document in accordance with Georgia Tech graduate requirements.

The following learning objectives will be realized:

- Formulate a well-defined research problem within civil and environmental engineering.
- Conduct a scholarly literature review and identify relevant gaps in knowledge.
- Develop and execute an appropriate research methodology.
- Analyze and interpret research findings in a rigorous manner.
- Communicate research results effectively in written and oral form.
- Produce a master's thesis that meets Georgia Tech academic standards.

### Pre-requisites/Co-requisites

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Students must be enrolled in the PhD program and have approval from their faculty advisor to register for thesis hours.

### Required Materials

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There is no required textbook. Readings and reference materials will be determined individually based on the student's thesis topic.

### Course Components and Evaluation

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Evaluation will be based on satisfactory progress toward completion of the master's thesis. Components may include:

- Thesis proposal or research plan
- Regular meetings with advisor
- Literature review and background development
- Research progress and technical work
- Written thesis document
- Final presentation and/or defense, if applicable

Final grading is typically assigned on the basis of overall thesis progress and completion, as determined by the faculty advisor.

#### *Advisor Meetings*

Students are expected to meet regularly (weekly except for holidays) with their advisor to discuss progress, research challenges, and next steps. Meeting frequency will be determined by the advisor and student, but consistent engagement is expected throughout the semester.

#### *Research Expectations*

Students should make steady progress on a clearly defined research topic. Expected activities may include literature review, model development, experiments, data analysis, simulation, interpretation of findings, and thesis writing.

#### *Writing Expectations*

Students are expected to begin writing early and revise continuously. The thesis should be prepared in a professional and scholarly manner and must satisfy all Institute and program requirements for formatting and submission.

### **Supporting Resources**

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Mastering the material for this course while managing a full course load and maintaining your health can be challenging. Georgia Tech provides resources ranging from academic support to personal support, to health care. Some good places to start are the Center for Academic Success, the Counseling Center, and Stamps Health Services.

### **Office of Disability Services**

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The Georgia Institute of Technology has policies regarding disability accommodation, which are administered through the Office of Disability Services. Students with disabilities should contact this office to request appropriate accommodations.

### **Academic Integrity**

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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. Any student suspected of academic misconduct will be reported to the Office of Student Integrity, which investigates incidents and determines appropriate penalties.