

Special Problems

School of Electrical and Computer Engineering
Georgia Institute of Technology

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Meeting Pattern: Individual research meetings arranged with advisor

Catalog Description

Special Problems. Independent study or faculty-directed investigation of an advanced topic in electrical and computer engineering. The specific scope, deliverables, and workload are defined by agreement between the student and the instructor.

Course Description

This section of ECE8903 provides academic credit for an individualized project, reading course, design study, software/hardware implementation, or research activity under the direction of the instructor. The exact topic for the student will be defined in a written plan during the first week of the term.

Learning Outcomes

- Define a focused problem or topic area appropriate for graduate-level independent study.
- Identify and evaluate relevant technical literature, tools, datasets, methods, or design constraints.
- Carry out a substantial body of work under faculty supervision.
- Communicate progress and results in professional written, oral, or technical form.
- Demonstrate sound academic integrity and responsible research or engineering practice.

Expected Work by Credit Hour

The expected time commitment should be consistent with Georgia Tech credit-hour norms and with the agreed project scope. A practical guideline is approximately three hours of work per week per credit hour across the semester, unless the instructor specifies a different structure.

Major Activities

- Literature review / technical reading
- Modeling, simulation, coding, or hardware work
- Experimental design, measurement, or analysis
- Weekly or biweekly faculty meetings
- Interim memo, presentation, or final report

Deliverables

- Project plan or statement of work
- Progress updates
- Final deliverables, such as one or more of the following: written technical report, oral presentation, code, data, design files, prototype, simulation results, and documented implementation

Course Policies

- Because ECE8903 is individualized, regular communication with the instructor is expected.
- Missed milestones should be discussed in advance whenever possible.
- The final scope may be adjusted by mutual agreement if the project evolves during the semester.
- Students are responsible for understanding any lab, safety, computing, export-control, or data-use requirements associated with the project.

Academic Integrity

Students are expected to uphold Georgia Tech's standards of academic integrity and the Honor Code. Any submitted work must properly acknowledge the contributions of collaborators, prior literature, software, datasets, and external tools.