

Special Problems Course Syllabus

Course Information

Course Prefix and Number: AE 8900 MAV/QMA/RMA

Instructor: Dimitri Mavris

Credit Hours: 3

Course Description

This course provides academic credit for independent studies under the direction of a faculty member. The scope and direction of the studies are determined by the student (or small group of students) in consultation with the course instructor.

Course Learning Outcomes

By enrolling in this course, students will:

1. Gain experience in performing independent studies on topics that are not taught in a formalized course setting.

Required Course Materials

No textbooks or materials are required. Resources for research are determined in consultation with the instructor.

Grading Policy

The following breakdown lists the assignments and presentations that will be evaluated throughout the semester. Failure to turn in any of the assignments or participate in both presentations will result in a failing grade for the course. Failure to submit any of the assignments on time will lead to a 20% late penalty.

Midterm Review	25%
Final Review	25%
Executive Summary	10%
Extended Abstract	10%
Reviewer Feedback	5%
Final Report	25%

The **Midterm Review** will consist of a 15-minute presentation covering the initial status of your project. An additional 5 minutes will be included in your schedule review to allow for questions and feedback. Similarly, the **Final Review** will be scheduled for 30 minutes, inclusive of a 25-minute presentation and 5 minutes of questions and feedback. Students are expected to prepare a presentation which includes their problem definition, motivation, formulation, technical approach, implementation, results, and findings of their special problem research.

In addition to the presentations for the reviews, students will prepare various written reports for their special problem research. Students will submit an **Extended Abstract** to their technical advisor for feedback. An extended abstract must contain the following sections, but not necessarily this order:

- Background
- Motivation
- Literature Review
- Approach/Methodology
- Any preliminary results/conclusions

This extended abstract is a “rough draft” of your paper, mimicking submission of an extended abstract to a conference for acceptance.

At the close of the semester, students will prepare a final written document consisting of a Title Page, **Executive Summary**, and **Final Report**. The executive summary is meant to summarize the entire work in one (1) to one-and-a-half (1.5) pages by briefly describing the motivation, problem definition, approach, results, key findings, and conclusions. However, it should not have any figures or references in it. The final report is the final, comprehensive report of the special problem research, mimicking the scope and format of typical technical conference papers. A draft of the final report will be submitted to a reviewer who will provide their **Reviewer Feedback** and assessment of the final report; this feedback will be submitted to verify that the final draft review has occurred.

[Attendance Policy](#)

This course does not include scheduled class meetings. The frequency and format of student–faculty contact are determined by mutual agreement and are consistent with the number of credit hours for which the student is enrolled.

[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.

Allegations of scientific or scholarly misconduct are handled in accordance with the procedures outlined by the [Policy for Responding to Allegations of Scientific or Other Scholarly Misconduct](#).

[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.