Robotics Capstone Project

Instructor Information

Instructor: Prof Lena Ting
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Course Information

Course Prefix and Number: BMED 8741 F
Term: Fall 2026
Course Prerequisites: Enrolled in Robotics MS program AND permission from the instructor.

General Course Information

Course Description

This course provides academic credit for a Robotics MS Capstone Project conducted under the supervision of a Georgia Tech faculty advisor. The course does not involve regular class meetings, assignments, or examinations. The scope and direction of research are determined by the student in consultation with the thesis advisor, consistent with the requirements of the degree program. Students taking this course will be required to travel to Emory for conduct of research and/or lab meetings.

Course Format and Materials

No textbooks or materials are required. Resources for research are determined in consultation with the thesis advisor. Student will be required to maintain an online lab notebook using a OneNote Notebook set up in the laboratory Sharepoint site.

Learning Goals and Outcomes

The goal of the class if for student to gain skills and conduct research necessary to complete the Robotics Capstone Project. By enrolling in this course, student will:

1. Engage in independent research under faculty supervision.

2. Gain experience in formulating research questions, learn appropriate approaches to address research questions, and execute the research projects.

3. Student will learn to communicate their research in oral and written formats to the advisor, lab, and thesis advisory committee if applicable.

Instructor Expectations

Achieving the goals of this course requires not only your effort, but mine. I am committed to fostering your learning and research by identifying various resources for you and providing feedback so that you may become a competent roboticist over the course of your MS. I will meet with you in regularly scheduled advisor and/or co-advisor meetings, as well as in lab meetings and research group meetings.

Student Expectations and Support for Student Success

Success in this course depends on students being organized, self-directed, and actively engaged. Students are expected to reflect on their weekly goals, accomplishments, and challenges and summarize them for our regular meetings, and for periodic updates at lab and group meetings. As others will provide you support and feedback, students are also expected to engage as a supportive team member to others in the lab; this is geared at developing skills in productive, interdisciplinary research.

The student will work with the faculty member to set research goals, understanding that these are guideline for success that may need modification. The student is expected to identify challenges and suggest solutions in consultation with the advisory. It is expected that students will let others know if they will be absent, and to anticipate any consequences for other due to their absence. Generally, students are expected to present at least once per semester in lab meeting, and to complete a self-evaluation prior to the end of the semester.

Courtesy

Members of our learning community represent a rich variety of backgrounds, training, and perspectives that are all critical for impactful interdisciplinary research. Our lab specifically leverages multidisciplinary perspectives and encourages students of all levels to share their questions, unique experiences, and ideas, be open to the views of others, respect and honor differences amongst colleagues and other professionals, and appreciate the opportunity we have two interact and learn from each other.

Courtesy in the lab is necessary to foster productive discussion and learning across disciplines and across people with different backgrounds. It is expected that students, staff, and faculty will engage each other respectfully and with the appropriate degree of professional courtesy. In this lab, people will have a wide variety of experiences and backgrounds. Therefore, it is important that during our discussions, that comments should be respectful of others, and offered with the intention of teaching each other and collaboration. It is expected that there may be disagreements and difference of opinion that should be delivered in a respectful way and be free of personal attacks.

Assignments

1. Students will meet regularly with the advisor at a frequency to be agreed upon by the advisor and student, attend ~weekly lab meetings, and attend research subgroup meetings as applicable to the research and learning goals.

2. Students will maintain their work in an online OneNote notebook, in Sharepoint files, and generate progress reports at a frequency agreed upon with the advisor, typically every other week.

3. Students will be expected to participate in lab meeting discussions, provide updates as scheduled by the lab, and to present at least once per semester.

Grading Policy

This course is graded on a **Satisfactory (S) / Unsatisfactory (U)** basis.

- A grade of **Satisfactory (S)** indicates that the student has made acceptable progress in their research toward degree completion, consistent with the number of thesis credit hours for which the student is enrolled for the semester.

- A grade of **Unsatisfactory (U)** indicates that the student did not meet the expectations for satisfactory performance during the term.

Course Policies

Attendance

This course does not include scheduled class meetings. Students conduct independent research under the supervision of a thesis advisor. The frequency and format of student–advisor contact are determined by mutual agreement.

Academic Integrity

Academic dishonesty will not be tolerated. This includes cheating, lying about course matters, plagiarism, or helping others commit a violation of the Honor Code. Plagiarism includes reproducing the words of others without both the use of quotation marks and citation. Students are reminded of the obligations and expectations associated with the Georgia Tech Academic Honor Code and Student Code of Conduct (www.honor.gatech.edu).

Core IMPACTS

Not applicable.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, contact the Office of Disability Services (404-894-2563) (http://disabilityservices.gatech.edu/) 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 Agreement

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 (http://www.catalog.gatech.edu/rules/22/) articulate some basic expectations that you can have of me and that I have of you. 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.