

Master of Engineering Program (M.Eng.) ENGR 5315 Capstone Project Course Guidelines

The following minimum general guidelines are provided to fulfill the expectations of the M.Eng. Capstone course:

- ❖ After completing a minimum of 24 credits towards their degree, students should start thinking about the capstone project at least 2 semesters before their final semester and submit a **Capstone Proposal Cover Page** (see attached) for approval in the semester prior to starting the project. The proposal **must** be completed prior to registering for the Capstone course.
- All M.Eng. students are strongly encouraged to develop capstone projects with faculty individually, by which the students will learn how to develop/formulate business related projects. To this end, a student should contact faculty with whom the student is interested in working with at least one semester ahead of the capstone project semester. If a student is unable to reach an agreement with an instructor but still plans to perform the capstone project, the student needs to discuss with their academic advisor to find an instructor. Once an agreement between student and instructor is reached, the student should summarize the planned project scope/schedule/milestones and submit it to their instructor and academic advisor for approval.
- **Please note:** your Capstone Project title will appear on your official transcript
- The Project Proposal is to include: (see attached Capstone Project Template)
 1. Concise description of the project
 2. Need or interest for the project
 3. Technical approach to be taken
 4. Work to be done and detailed description of deliverables
 5. Expected results
 6. Initial planned project schedule
- The proposal is evaluated in terms of:
 1. Project
 2. Relevance
 3. Project definition
 4. Project application and its application likelihood
 5. Student's background and ability to perform the project
- ❖ The Graduate student is expected to spend the same amount of time for this project course as for any graduate 3-credit course, which is about **9-12 hours per week** for 15 weeks.
- ❖ The subject of the project selected can support the company for which the graduate student is employed, or the student can propose a problem or topic to pursue that is of interest to them.

- ❖ The project should draw upon and demonstrate the application of material taught in the M.Eng. program.
- ❖ The Graduate student should be in contact (meet or by telephone) with his/her capstone instructor(s) at least **every two weeks** (or by mutually agreed upon time schedule) during the semester. The Graduate student will brief the instructor(s) of his/her progress. Copies of the report or PowerPoint briefings should be sent to the instructor(s) approximately three days before the briefing. Dates of the meeting should be written on the Capstone Project Checklist.
- ❖ At Mid-Term, approximately 7 weeks into the semester, the student's "Progress Mid-Term Briefing" should provide sufficient results of completed tasks and deliverables, analysis, and testing (as applicable) such that the project can be successfully projected to be completed by the end of the semester.
- ❖ The **deliverables** of the project are to include:
 - A set of Progress Briefings
 - A Final Report
 - A 45–60-minute oral presentation at the end of the term
 - The Final Report and Oral presentation constitute the Final Exam
 - Data sets, model, or engineering artifacts detailed in the deliverables section
 - **Note:** This requirement can be modified if the project contains proprietary, confidential, or export-control information owned by the student or the student's employer.
- ❖ The outline of the Final Report is to include the following general suggested sections:
 - Abstract including goals/objectives of the project
 - Introduction and Background
 - Survey of related literature to the Project subject
 - Methodology
 - Analysis
 - Experimental data if applicable
 - Results including comparison of analysis and experimental data
 - Conclusions
 - Recommended future work
 - References

Recommended Capstone Project Semester Schedule

Time	Deliverable	Format
Pre-work	Think about project topic and learn software/technology for the project. Finalize and get approval for topic.	Written proposal using Proposal Cover Page
Week 1	Begin research/work	N/A
Week 3	Progress Briefing	PowerPoint or Report
Week 5	Progress Briefing	PowerPoint or Report
Week 7	Progress Mid-term Briefing	PowerPoint or Report
Week 9	Progress Briefing	PowerPoint or Report
Week 11	Progress Briefing	PowerPoint or Report
Week 13	Progress Briefing	PowerPoint or Report
Week 15	Final Project Deliverables	Final Oral Presentation and Completed, Final Report, and Planned Artifacts

Capstone Proposal Cover Page

This template must be completed and submitted to your Capstone Project Instructor and Academic Advisor for approval.

Student: _____ Instructor: _____

Advisor: _____

Employer: _____

Capstone Project Title: _____

Instruction

The proposal should consist of the following sections:

- I. Concise description of the project
- II. Need or interest for the project
- III. Technical approach to be taken
- IV. Work to be done and detailed description of deliverables
- V. Expected results
- VI. Initial planned project schedule

ENGR 5315 M.Eng. Capstone Checklist

To be started 1-2 semesters before requesting registration for capstone project:

- ☐ Complete minimum of 24 credits toward your degree.
- ☐ Discuss possible capstone projects topics with your academic advisor and obtain approval to start capstone project.
- ☐ Decide on a capstone project and title.
- ☐ Contact an instructor you are interested in working with for the project and ask them to serve as your capstone instructor.
 - **Note:** Your academic advisor can serve as both your advisor and capstone instructor.
- ☐ Draft capstone proposal using provided cover page.
- ☐ Send your draft capstone proposal to your instructor and academic advisor for review and approval **no later than** the end of the semester prior to your capstone.
- ☐ Contact the Center for Advanced Engineering Education (CAEE) at engrcaee@uconn.edu and submit the capstone proposal cover page along with the written approvals from your advisor and instructor (email from advisor/instructor counts as written approval).
 - **Note:** Deadline for submission to CAEE is **no later than 1 week** prior to the start of your capstone semester.

Registration:

- ☐ Once the previous steps have been completed **and** you have approval to enroll from instructor, advisor, and CAEE, fill out a [Enrollment Change Form](#) **before the first day of the semester.**
 - Instructions to fill out the form: (For questions regarding the form, contact onestop@uconn.edu)
 1. Open the eForms tile in Student Admin
 2. Select Enrollment Change Form – New Enrollment Change Form (Please note most of your information will automatically pull from Student Admin)
 3. Choose Major – Click the magnifying glass – MENGGR
 4. Select Advisor – Click the magnify glass – Your assigned academic advisor should be available to select
 5. Select Appropriate Term
 6. Add a New Class
 7. Add Independent Study
 8. Using the [Class Search Tool](#) search for the section number that has been assigned to your instructor – If a section does exist for your instructor, please use this section
 - If no section exists for your instructor – Request New Section – Select Course (ENGR 5315) – 3 credits – Search for Primary Instructor
 9. Insert the title of your project in the appropriate box
 10. Agree to the Student Statement

The form will go through the following approval process: Instructor > Advisor > Department head and then the **Registrar's Office will manually enroll you in the course** (Questions? – Contact engrcaee@uconn.edu).

- **Please note** that you will be able to check the status of your approval under the 'View Your Forms' section of the Enrollment Change Form in Student Admin (you will need to use the Form ID you received when you submitted the form for approval to check the status)

During your capstone semester:

- ☐ Check in with advisor every 2 weeks at a minimum and enter dates below.

____/____/____ ____/____/____ ____/____/____ ____/____/____ ____/____/____ ____/____/____ ____/____/____ ____/____/____

- ☐ Prepare capstone presentation.
- ☐ Prepare written report.
- ☐ Schedule date with instructor and 1 additional faculty member for final presentation
 - Both will provide written feedback to student.
- ☐ Present your capstone project.
- ☐ Submit written report and completed checklist to instructor.