MER 497 MECHANICAL ENGINEERING SENIOR PROJECT SYLLABUS

Register Description: Capstone design project or research project, performed either independently or in a team, under the supervision of one or more of the department faculty. Prerequisites: MER 311 or MER 333, whichever is most closely related to the project topic. Corequisites: MER 311 or MER 333, whichever is not most closely related to the project topic, and MER 010.

Grades: Grades will be assigned by project advisors using the Grading Rubric and after departmental discussions.

Honor Code: The highest levels of ethical behavior are required of those in the profession of engineering and, by extension, of those preparing themselves to enter the profession. Furthermore, ethical behavior, especially in the area of academic honesty, is critically important to the entire educational and academic mission of the College. Therefore the Mechanical Engineering Department takes matters of academic dishonesty and cheating very seriously.

To foster and enforce the highest standards of academic honesty, the ME Department fully supports Union’s Honor Code and Honor Council. Specifically, Union’s academic honor code requires that “Any suspected violations of the Honor Code must be reported”. All Mechanical Engineering faculty will strictly adhere to this guidance. Any suspected violations of the honor code will be reported. The honor code further states: “Normally, for a first violation of the Honor Code, a student would fail the course.” Because of the importance of honesty and ethics in engineering, the Mechanical Engineering Department understands and supports the significant penalties outlined in the honor code for academic misconduct.

Further information on Union’s honor code can be found here: honorcode.union.edu

Remember, it is your responsibility to understand and comply with instructions for what sorts of study aids, references, outside resources, and/or collaboration are allowed and disallowed for each assignment in each course. Ignorance of what is disallowed is not a defense.
MER 497 MINIMUM PROJECT REQUIREMENTS AND DUE DATES

Failure to submit any of the minimum project requirements will result in a full letter grade reduction.
Your advisor may have more requirements and different due dates.

JUNIOR YEAR

Project Selection Form due 5 pm Friday of fifth week of term of MER 010 during Junior year

Participating in the Senior Project Selection Process including listening to faculty presentations on their research interests and opportunities (student generated research projects are encouraged but must be fully developed); presenting project ideas and interests; arranging to meet with faculty members with overlapping interests; completing the Senior Project Selection Form per the instructions and turning it in to the MER 010 instructor.

Display Case Description due 5 pm last day of term of MER 010 during Junior year

Includes creating an 8.5” x 11” landscape-format color "slide" with your picture, project title and brief description (50 words maximum) of your project and turning it in to the departmental Administrative Assistant.

SENIOR YEAR

Project Plan due 5 pm Monday of second full week of MER 497 term

Includes developing and preparing a detailed project plan and turning it in to your project advisor. This plan must include a review of the relevant literature; the objectives and expected results of your project; how the expected results would integrate into existing knowledge; the materials and methods you will use to achieve your objectives and results including design, experimental (including data acquisition and reduction), computational and analytical methods; a timetable for completing specific objectives; and a proposed budget (a Student Research Grant proposal must be prepared to attempt to obtain funding for your project).

Oral Progress Presentation during sixth full week of MER 497 term

Includes signing up for, preparing and giving an oral presentation to the department and other interested parties.

Weekly Progress weekly during MER 497 term

Includes participating and presenting at weekly meetings with your project advisor and other group members; maintaining your project notebook; managing your project budget; and establishing, meeting and updating your weekly plans and accomplishments.

Written Progress Report due 5 pm last class day of MER 497 term

Includes writing a technical report and turning it in to your project advisor by the deadline. A well written project plan should serve as an excellent draft on which to expand to create this report.

Student Self-Assessment Form due 5 pm last class day of MER 497 term

Includes completing form with specific examples and explanations, assigning grades to yourself and turning it in to your project advisor.