

EML 4551 – DESIGN PROJECT
Common Course Syllabus

Catalog Description: 3 CREDITS. Continuation and completion of individual and group projects initiated in prerequisite course EML 4521C, Engineering Design.

Goals: The students will work together in the team environment to bring the project to completion. This will involve the use of engineering analysis and design methodologies. The course will improve their team participation and management skills, along with their written and oral communication skills. It will make the students aware of both safety and environmental issues.

Prerequisite:

1. EML 4521C - Engineering Design

Topics:

1. Application of design process
2. Application creativity, and problem solving
3. Application of team building
4. Application of communication skills (report writing, oral presentation)
5. Application of project planning and management
6. Consideration of safety, hazard, environmental issues.

Course Outcomes: (numbers in parentheses indicate correlation of the outcome with the appropriate ABET program outcomes 1-7)

1. The students will be able to formulate and analyze problems, and synthesize and develop solutions based on fundamental principles. (1,2,6)
2. The students will design basic mechanical components or processes to meet desired specifications using appropriate engineering tools and techniques. (1,2,6)
3. The students will demonstrate an understanding of professional, societal and ethical responsibility. (4)
4. The students will function effectively in teams and communicate their ideas to their peers. (3,5)
5. The students will recognize the need to engage in life-long professional development and learning. (4,7)

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