A. **TITLE:** Capstone Project

B. **COURSE NUMBER:** SOET 477

C. **CREDIT HOURS:** 3

D. **WRITING INTENSIVE COURSE:** Yes

E. **COURSE LENGTH:** 15 weeks

F. **SEMESTER(S) OFFERED:** Fall/Spring.

G. **HOURS OF LECTURE, LABORATORY, RECITATION, TUTORIAL, ACTIVITY:**
3 hours of lecture per week

H. **CATALOG DESCRIPTION:** This course provides a learning experience that allows students to propose, design and implement a project. This could be a study of a problem and solution of specific equipment, new product design, improvement of an existing product, and many others. All projects must be approved by course faculty.

I. **PRE-REQUISITES:** Senior level status or permission of program director.

J. **GOALS (STUDENT LEARNING OUTCOMES):**
By the end of this course, students will be able to:

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<th>Course Objective</th>
<th>Institutional SLO</th>
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| a. Perform basic research | 2. Crit. Thinking  
3. Prof. Competence |
| b. Propose a standard project | 2. Crit. Thinking  
3. Prof. Competence |
| c. Design and implement a project | 2. Crit. Thinking  
3. Prof. Competence |
| d. Identify and propose a solution to a specific Engineering Technology problem | 2. Crit. Thinking  
3. Prof. Competence |
| e. Prepare a standard project report | 2. Crit. Thinking  
3. Prof. Competence |
| f. Present project results | 1. Communication  
2. Crit. Thinking  
3. Prof. Competence |
| g. Demonstrate professional communication skills | 1. Communication  
2. Crit. Thinking  
3. Prof. Competence |
K. **TEXTS:** N/A

L. **REFERENCES:** N/A

M. **EQUIPMENT:** Students are responsible for materials or components that may be needed to complete an approved project.

N. **GRADING METHOD:** A – F

O. **MEASUREMENT CRITERIA/METHODS:**
   - Project level of difficulty
   - Final report
   - Presentation skills

P. **DETAILED COURSE OUTLINE:**
   1. Project Proposal
      a. Team or individual
      b. Must meet a standard established by faculty
      c. Must be submitted within the first two weeks of classes
      d. One week extra time given to rejected proposal for resubmission
   2. Project Update
      a. Individual or team project updates every month
   3. Project Report
      a. Must follow standard as outlined in course syllabus
      b. Must include design, data, and diagrams
      c. Solution of the problem
   4. Presentation
      a. Individual/group project PowerPoint presentation
      b. Public speaking/dress code
      c. Project demonstration
      d. Q&A from students, faculty and staff

Q. **LABORATORY OUTLINE:** N/A