ABET Classification

<table>
<thead>
<tr>
<th>EE Program of Study</th>
<th>This course IS NOT an EE core course.</th>
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<tbody>
<tr>
<td></td>
<td>This course CANNOT be used as an EE technical elective.</td>
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<table>
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<tr>
<th>CpE Program of Study</th>
<th>This course IS NOT a CpE core course.</th>
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<td>12 hours of CpE technical electives must be on a prescribed list.</td>
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<td></td>
<td>This course IS NOT on that list.</td>
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Catalog Description

Culmination of multi-quarter thesis integrating various areas into a design project with implementation. Students document with a written thesis and final oral presentation.

Level Credits Class Meeting Pattern (For example, "3 cl." means 3, 48-min classes per week.)
U G 3 Arr.

Course Prerequisites
Prereq: 582, 3 credits of H783, sr. standing, and permission of department (the ECE honors program coordinator). Not open to students with credit for 682 or 683.

Quarters of Offering
Su, Au, Wi, Sp Qtrs.

General Info, Cross-listings, Exclusions, etc.

Cross-listed with:
General Info:
Exclusion:
Courses that require this as a direct prerequisite: none

Prereq by topic: Senior level standing (so almost all EE core courses have been taken), technical communications, structured design methodology, teamwork experience in problem solving and design; economic, ethical, legal and social aspects of design.

Learning Outcomes (with ABET Criterion 3 Student Outcomes for Undergraduate Courses)

1. The principle objective is to ensure that undergraduate Honors thesis students have a high quality capstone design experience to integrate concepts from a range of classes in the core. (Criteria 3(a),(b),(c),(d),(e),(g),(h),(i),(k))
2. The students are to apply modern engineering practices and techniques. (Criteria 3(k))
3. The students apply verbal written and oral technical communication skills to document the design process. (Criteria 3(g))
4. Collaborative teamwork of the nature in a research environment is expected, including extensive interaction with other researchers (not including the thesis advisor) working on a larger research effort. (Criteria 3 (c),(d))
5. Students will perform their design in context of realistic design constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability. (Criterion 3(c))

Text(s) and Other Course Materials

No text

References (supplemental reading)

none

Topics and (# of Lectures)

Written project specification and requirements
Standard Course Syllabus
Department of Electrical and Computer Engineering (ECE)

683H  BS Honors Group Project for Electrical and Computer Engineering Design II

Use of modern design tools
Use of components and systems specific to particular project
Oral presentations on design progress

Representative Lab Assignments

Grading Plan
Students must file detailed course plan with Undergraduate Advisor.
Progress reports, design proposals, final design presentations. Weighting of these varies by section.
The Honors Thesis advisor enters the grade into SIS, but the course supervisor reviews the thesis document prior to final
grade posting to ensure consistency of reporting on the collaborative teamwork and engineering design.

Relationship to ABET Criterion 3 Student Outcomes (a-k)
See Learning Objective listed above.

Relationship to Additional ABET Student Outcomes
CpE (l), (m), (n)
EE (l), (m), (n)

Course Supervisor: Clymer
Date of Approval of Standard Syllabus by Area: 05/11
Most Recent Course Evaluation: Sp11
Most Recently Area Review: Sp11