ECE 4999.01 (Approved): Undergraduate Thesis Research

Course Description
Undergraduate Thesis (Distinction) research on topics in Electrical & Computer Engineering.

Transcript Abbreviation: Ugrad Thesis Res
Grading Plan: Letter Grade
Course Deliveries: Classroom
Course Levels: Undergrad
Student Ranks: Junior, Senior
Course Offerings: Autumn, Spring, May, Summer, May + Summer
Flex Scheduled Course: Never
Course Frequency: Every Year
Course Length: 14 Week
Credits: 0.5 - 3.0
Repeatable: Yes
Maximum Repeatable Credits: 6.0
Total Completions Allowed: 6
Allow Multiple Enrollments in Term: No
Graded Component: Independent Study
Credit by Examination: No
Admission Condition: No
Off Campus: Never
Campus Locations: Columbus
Prerequisites and Co-requisites: Prereq: GPA 3.0 or above, and enrollment in ECE major, and approved Thesis (Distinction) project.
Exclusions:
Cross-Listings:

Course Rationale: Existing course.

The course is required for this unit's degrees, majors, and/or minors: No
The course is a GEC: No
The course is an elective (for this or other units) or is a service course for other units: Yes

Subject/CIP Code: 14.1001
Subsidy Level: Baccalaureate Course

Programs

<table>
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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>CpE</td>
<td>Computer Engineering</td>
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<tr>
<td>EE</td>
<td>Electrical Engineering</td>
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Course Goals

Engage undergraduates in electrical and computer engineering research and to prepare students for graduate thesis/dissertation work

Course Topics
Supervised undergraduate research on various topics in Electrical and Computer Engineering

Representative Assignments

Varies

Grades

Aspect

| Progress Report(s) for semesters or terms prior to graduation semester; Thesis document and oral defense of the thesis for graduating semester. | 100% |

ABET-EAC Criterion 3 Outcomes

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<tr>
<th>Course Contribution</th>
<th>College Outcome</th>
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<td>*</td>
<td>a An ability to apply knowledge of mathematics, science, and engineering.</td>
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<td>***</td>
<td>b An ability to design and conduct experiments, as well as to analyze and interpret data.</td>
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<td>*</td>
<td>c An ability to design a system, component, or process to meet desired needs.</td>
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<td></td>
<td>d An ability to function on multi-disciplinary teams.</td>
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<td>***</td>
<td>e An ability to identify, formulate, and solve engineering problems.</td>
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<td>*</td>
<td>f An understanding of professional and ethical responsibility.</td>
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<td>*</td>
<td>g An ability to communicate effectively.</td>
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<td>**</td>
<td>h The broad education necessary to understand the impact of engineering solutions in a global and societal context.</td>
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<td>**</td>
<td>i A recognition of the need for, and an ability to engage in life-long learning.</td>
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<td>**</td>
<td>j A knowledge of contemporary issues.</td>
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<td>***</td>
<td>k An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.</td>
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Additional Notes or Comments
updated to match OSU Curriculum 10/30/12

Prepared by: Betty Lise Anderson