ECE 381 Syllabus

Course: ECE 381
Credit Hours: 1
Course Title: Engineering Profession for Computer Engineers

Course Description:

Introduction to engineering as a profession including issues surrounding computer engineering. Topics include professional and ethical responsibilities, risks and liabilities, intellectual property, and privacy. Economic issues including entrepreneurship and globalization.

Prerequisite(s): ECE 212, ECE301, ENG 302, COM 110; EE Major

Textbook(s) and/or other required material:

None: Selected Presentation Materials handed out in class and posted on the course Webpage.

Course objectives. By the end of this course, the student should be able to (use demonstrative verbs):

1) Demonstrate an understanding of the societal issues related to electrical engineering.
2) Demonstrate an awareness of the ethical issues that electrical engineers may face.
3) Inform students of professional issues associated with engineering in industry and academia
4) Introduce product development methodologies.
5) Introduce project management methodologies.

Topics covered:

Professional Registration (1)
Intellectual Property (1)
Ethics (1)
Societal Issues (1)
Engineering in Industry (2)
Product Development and Project Management (2)
Pros and Cons of Graduate School (1)
Information Sciences for Research and Development (1)

Class/laboratory schedule (sessions per week and duration of each session):

Societal Issues Objective ≠çå, ¬á£œ 1 lecture; Ethical Issues - 1 lectures; Professionalism Objective ≠çå, ¬á£œ 8; Product Management Objective ≠çå, ¬á£œ 1 lectures; Project Management Objective ≠çå, ¬á£œ 1 lecture;

Contribution of course to meeting the requirements of Criterion 5 - other:

8 Hours

Contribution of course to meeting the requirements of Criterion 5 - math and basic sciences:
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Contribution of course to meeting the requirements of Criterion 5 - engineering topics:

Contribution of course to meeting the requirements of Criterion 5 - general education:

Relationship of this course to program learning outcomes:

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>Level of Instruction</th>
<th>Related Course Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Outcome B</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Outcome C</td>
<td>Basic</td>
<td>Students are introduced to design methodologies commonly used in industrial product development. There are two assignments related to Product Design and Project Management.</td>
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<tr>
<td>Outcome D</td>
<td>N/A</td>
<td></td>
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<tr>
<td>Outcome E</td>
<td>N/A</td>
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<tr>
<td>Outcome F</td>
<td>Major</td>
<td>Students attend seminars covering ethics issues, societal issues and examples of professionalism in practice. Students are tested on seminar content.</td>
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<tr>
<td>Outcome G</td>
<td>N/A</td>
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<tr>
<td>Outcome H</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Outcome I</td>
<td>Basic</td>
<td>Students attend seminar graduate school and lifelong learning.</td>
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<tr>
<td>Outcome J</td>
<td>N/A</td>
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<tr>
<td>Outcome K</td>
<td>N/A</td>
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</tr>
</tbody>
</table>

Person who last prepared this description and date of preparation:

- Greene, Barton J (bjgreene) - Mar 31st, 2009 (12:28pm)