EE 1111
Introduction to Electrical and Computer Engineering

Curricular Designation: EE: required  CpE: required

Catalog Description:
EE 1111 - Introduction to Electrical and Computer Engineering
A half-semester course intended to provide an introduction to the profession of Electrical Engineering and Computer Engineering for freshman or sophomore students. The goals of this course are to provide perspective into the various sub-areas within ECE and highlight the technical, professional, and ethical behavior expected of the graduate.

Credits: 1.0 Lec-Rec-Lab: (0-2-0)  Semesters Offered: Fall, Spring.  Restrictions: Must be enrolled in one of the following Major(s): Electrical Engineering, Software Engineering, Computer Engineering, Electrical Engineering Technology, Engineering Undeclared; Must be enrolled in one of the following Class(es): Freshman, Sophomore

Textbooks(s) and/or Other Required Materials:
Where Wizards Stay Up Late: The Origins of the Internet by Katie Hafner

Prerequisites by Topic:
1. The desire, guts, perseverance and aptitude to become an electrical or computer engineer.

Course Objectives:
Upon successful completion of this course students should have the knowledge to:

- Navigate the curriculum through to graduation
- Understand the options and alternatives available in their academic career
- Understand the options and alternatives available in their professional career
- Understand the ethical expectations of a both a student and a practicing engineer
- Be successful in their academic and professional career

Topics Covered:
1. Transitioning to college-level academics
2. Time management
3. Resume writing
4. The importance of internships and/or Co-Op experience
5. Understanding Engineering Enterprise and the Pavlis Honors College
6. Navigating the curriculum
7. Concentrations and areas of specialization
8. Academic integrity
9. Ethics and the professional engineer
## Relationship of the Course Content to Program Outcomes:

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Important</th>
<th>Moderately</th>
<th>Minimally</th>
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</thead>
<tbody>
<tr>
<td>a</td>
<td>an ability to apply knowledge of mathematics, science and engineering</td>
<td></td>
<td>x</td>
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<tr>
<td>b</td>
<td>an ability to design and conduct experiments, as well as to analyze and interpret data</td>
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<td>c</td>
<td>an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, health and safety, manufacturability and sustainability</td>
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<td>d</td>
<td>an ability to function on multi-disciplinary teams</td>
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<td>x</td>
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<tr>
<td>e</td>
<td>an ability to identify, formulate and solve engineering problems</td>
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<td>x</td>
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<td>f</td>
<td>an understanding of professional and ethical responsibility</td>
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<td>x</td>
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<td>g</td>
<td>an ability to communicate effectively</td>
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<td>h</td>
<td>the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context</td>
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<tr>
<td>i</td>
<td>a recognition of the need for, and an ability to engage in life-long learning</td>
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<td>x</td>
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<td>j</td>
<td>a knowledge of contemporary issues</td>
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<td>k</td>
<td>the ability to use the techniques, skills, and modern engineering tools necessary for the practice of electrical engineering</td>
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## Contribution of Course to Meeting Degree Requirements:

1 Credit Hour – Engineering Topics

**Class/Laboratory Schedule** (note: 1 hour = 50 minutes):
Lecture: 14 hours = 2 hours/week for 7 weeks

**Prepared by:**
John Lukowski, Associate Professor, December 7, 2016