ECE 6070: Project Management in Electrical and Computer Engineering

Course Description
Students learn project management principles and apply them to Electrical and Computer Engineering real-world projects.

Transcript Abbreviation: Proj Manage ECE
Grading Plan: Letter Grade
Course Deliveries: Classroom
Course Levels: Graduate
Student Ranks: Masters, Doctoral
Course Offerings: Autumn, Spring
Flex Scheduled Course: Never
Course Frequency: Every Year
Course Length: 14 Week
Credits: 3.0
Repeatable: No
Time Distribution: 3.0 hr Lec
Expected out-of-class hours per week: 6.0
Graded Component: Lecture
Credit by Examination: No
Admission Condition: No
Off Campus: Never
Campus Locations: Columbus
Prerequisites and Co-requisites: Prereq: Grad standing in ECE.
Exclusions: Not open to students with credit for 6194.02.
Cross-Listings:

Course Rationale: Expose students to project management principles and their application to Electrical and Computer Engineering real-world projects.

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: Doctoral Course

Programs

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<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

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Learn principles of project management</td>
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<td>Apply project management tools and processes to solve Electrical and Computer Engineering problems.</td>
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</table>
Integrate technical aspects of Electrical and Computer Engineering with other practical aspects to successfully manage a project in the Industry framework.

Emphasize and practice teamwork.

Practice organizational, communication, technical writing and presentation skills.

## Course Topics

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<thead>
<tr>
<th>Topic</th>
<th>Lec</th>
<th>Rec</th>
<th>Lab</th>
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<th>IS</th>
<th>Sem</th>
<th>FE</th>
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<tbody>
<tr>
<td>General principles of Project Management</td>
<td>3.0</td>
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<tr>
<td>Project Management process and tools</td>
<td>10.5</td>
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<td>Team Culture and project communications</td>
<td>3.0</td>
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<tr>
<td>Strategic issues in Project Management, risk and crisis management</td>
<td>3.0</td>
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<td>Practical considerations in implementing Project Management in the Industry</td>
<td>4.5</td>
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<tr>
<td>Case studies in Electrical and Computer Engineering</td>
<td>6.0</td>
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<td>Application of Project Management to Electrical and Computer Engineering Projects</td>
<td>9.0</td>
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<td>Project Documentation and reporting</td>
<td>3.0</td>
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## Representative Assignments

- Homework Assignments
- Final Project
- Presentation on project progress

## Grades

<table>
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<tr>
<th>Aspect</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Homework Assignments</td>
<td>60%</td>
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<tr>
<td>Midterm</td>
<td>5%</td>
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<tr>
<td>Presentation on project progress</td>
<td>10%</td>
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<tr>
<td>Final Project</td>
<td>15%</td>
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<td>Final Exam</td>
<td>10%</td>
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## Representative Textbooks and Other Course Materials

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
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<tbody>
<tr>
<td>Project Management in Practice (Recommended)</td>
<td>Jack R. Meredith, Samuel J. Mantel Jr., Scott M. Shafer, Margaret M. Sutton</td>
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<tr>
<td>Project Management. A system approach to planning, scheduling, and controlling (recommended)</td>
<td>Harold Kerzner</td>
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<tr>
<td>Project Manager’s Portable Handbook (Recommended)</td>
<td>David I. Cleland, Lewis R. Ireland</td>
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## ABET-EAC Criterion 3 Outcomes
<table>
<thead>
<tr>
<th>Course Contribution</th>
<th>College Outcome</th>
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<tr>
<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>c  An ability to design a system, component, or process to meet desired needs.</td>
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<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>f  An understanding of professional and ethical responsibility.</td>
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<td>g  An ability to communicate effectively.</td>
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<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>i  A recognition of the need for, and an ability to engage in life-long learning.</td>
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<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**

One of the textbooks will be required, but it hasn't been decided which yet.

**Prepared by:** Betty Lise Anderson