ENGINEERING PROJECT MANAGEMENT - MINOR

The Engineering Project Management minor is intended to help meet the requirements of industry by educating undergraduate engineering students to understand complex engineering projects, project organizations, and project management methods. Students completing this minor will be able to work effectively in multidisciplinary engineering projects immediately after completion and to advance more rapidly within the project management organization and profession. The management of projects entails technical knowledge, engineering skills, and management skills.

To earn the minor, a student must complete a total of 16 semester credit hours that include prerequisite introductory core courses (ENGR 333 and ENGR 380) and courses selected from the following 4 categories:

1. Business management and leadership. The courses listed under this category provide required skills to understand the key management principles and provide leadership in project planning and execution.
2. Project economics, analysis, and decisions. The courses listed under this category provide advanced understanding of the analytical tools required to support project planning and execution.
3. Application of project management tools. The courses listed under this category provide examples of the application of project management principles.
4. Project experience as directed studies. The courses listed under this category provide practical experience in managing projects via internships, campus or community-based engagements, or research. Students should be able to receive credit via ENGR 485 for documenting their project experience.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 333</td>
<td>Project Management for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 380</td>
<td>Seminar Series in Engineering Project Management</td>
<td>1</td>
</tr>
</tbody>
</table>

**Core Courses**

**Business Management and Leadership**

Select from the following: 2-4

- MGMT 309 Survey of Management
- SOMS 380 Workshop in Leadership Education
- SOMS 381 Workshop in Leadership Education II
- SOMS 481 Seminar in Executive Leadership
- SOMS 482 Seminar in Executive Leadership II
- ESET 319 Engineering Leadership
- ENGR 289 Special Topics in... (Introduction to Engineering Leadership)
- ENGR 489 Special Topics in... (Leadership and Business Fundamentals)
- ENGR 489 Special Topics in... (Role of Engineering and Business in Society)

**Project Economics, Analysis and Decisions**

Select from the following: 2-6

- ISEN 302 Economic Analysis of Engineering Projects
- or ISEN 302r Engineering Economic Analysis
- CVEN 322 Civil Engineering Systems
- PETE 353 Petroleum Project Evaluation
- CHEN 430/SENG 430 Risk Analysis in Safety Engineering

**Application of Project Management Tools**

Select from the following: 3-6

- ISEN 411 Engineering Management Techniques
- CVEN 405 Construction Management of Field Operations
- CVEN 473 Engineering Project Estimating and Planning
- CVEN 349 Civil Engineering Project Management
- ISEN 330 Human Systems Interaction
- CSCE 431 Software Engineering
- CSCE 315 Programming Studio
- SENG 312 System Safety Engineering
- CHEN 460/SENG 460 Risk Analysis in Safety Engineering
- ESET 329 Six Sigma and Applied Statistics
- ESET 419 Engineering Technology Capstone I
- BMEN 469 Entrepreneurial Issues in Biomedical Engineering
- MEEN 489 Special Topics in... (Entrepreneurship Related to Nanomaterials Application in Energy)

**Project Experience as Directed Studies**

Select from the following: 0-3

- ENGR 485 Directed Studies (Internship Project, Campus Project or Community Project)
- ENGR 491 Research (Research Project)

Total Semester Credit Hours 16

Minimum required GPA to declare minor is a 2.5.

Must earn a grade of ‘C’ or better in each course used towards minor.

Must achieve an overall GPA of 2.5 in approved minor coursework.