

Applied Project Management in Product Development Team Environments

MECHENG 5600

Credit Hours:

3.00

Course Levels:

Undergraduate (1000-5000 level) Graduate

Course Components:

Lecture

Course Description:

Students learn to apply project management concepts in product development team environments; includes relevant theory, tools, and techniques used in industry; relevant systems engineering concepts for designing complex products are introduced.

Prerequisites and Co-requisites:

Prereq: Jr, Sr, Grad status; and enrollment in College of Engineering or Engineering minor.

Course Goals / Objectives:

- Apply project management techniques to facilitate an engineering project
- Apply systems integration techniques to facilitate development of complex products
- Use project management and systems integration software effectively
- Appreciate the importance of class topics to successful execution of complex projects

Course Topics:

- Course Introduction and Team Formation
- Project Initiation
- Project Planning
- Project Planning Tools
- Project Execution
- Project Execution Tools
- Project Monitoring and Control
- Project Monitoring Tools
- Project Closeout
- Alternative Project Management Techniques
- Project Management Wrap-Up
- System Engineering Overview
- Systems Engineering Phases
- Top-Level Requirements, Concept of Operations & PBS
- Writing Good Requirements & Requirements Verification Matrices
- Functional Flow Diagrams & N2 Diagrams
- DFMEA and FTA Techniques

Designation:

Elective