



Title : *System Engineering Project Management*

Pre-requisite: Nil

Objectives: This course provides student with an opportunity to look for Systems Engineering from both technical and management perspective. It introduces the students to the management philosophy of full range Systems Engineering concepts, tools, and techniques.

Outcomes: After taking the course the student will be equipped with managerial tools that need to be applied for Systems Engineering management.

Course Code: SYSE-805

Credit Hours:3-0

Course Contents with proposed contact Hours (Weekly plan):

1. Introduction to System Engineering & Project Management
2. Work Breakdown Structure
3. [Statement of Work & Statement of Objectives](#)
4. [Integrated Planning](#)
5. Quality Management: Technical Performance Measures (TPMs), Quality Function Deployment (QFD), Reliability and Maintainability, Test and Evaluation Management Plan (TEMP)
6. Risk Management: Risk Measurement, RM Process – planning, identification, analysis, handling approaches, monitoring
7. Configuration Management
8. Project Scheduling: System engineering master schedule, Charts (Bar/Milestone/Gantt), Activity relationships, network-based methods (CPM/PERT), crashing
9. Cost Management: Activity Resource Estimation, preparing cost projections, CBS, Earned Value Management, Life Cycle cost analysis
10. Specs & Tech Performance Monitoring
11. Conflict in Project Management
12. [Market Planning](#)
13. [Project Management Communications](#)
14. Human Aspects of SE Management: Human Resource Management, Leadership Characteristics, Interaction between individuals in various roles, Staffing and personnel training

Details of lab work/workshop practice, if applicable:

Not Applicable

Recommended reading, including textbooks, reference books with dates

1. Benjamin S. Blanchard, System Engineering Management. 5th ed. Wiley 2004
2. Howard Eisner, Essentials of Project and Systems Engineering Management, 2nd ed. Wiley. 2011
3. [Alexander Kossiakoff, Steven M. Biemer, Samuel J. Seymour, David A. Flanagan, Systems Engineering Principles and Practice, Wiley 2020](#)

