

**EMBRY-RIDDLE AERONAUTICAL UNIVERSITY**  
**Department of Computing and Mathematics**  
**COURSE OUTLINE FOR**

**Course No.:** MSE510

**Title:** Software Project Management

**Cr Hrs:** 3

**Lecture Hours:** 3

**Laboratory Hours:** 0

**COURSE DESCRIPTION:**

This course addresses process considerations in software systems development. It provides advanced material in software planning, mechanisms for monitoring and controlling projects, and leadership and team building.

**GOALS:**

Provide knowledge and understanding of the concepts, principles, techniques, and tools that are used in the management of software projects.

**PERFORMANCE OBJECTIVES:**

1. Describe the requirements for the content of a project management plan.
2. Describe the role of the manager in each phase of the software development life cycle.
3. Discuss the key roles and activities that managers are responsible for in software development efforts.
4. Describe economic and customer-driven factors and their role in the eventual form of the software product.
5. Write a plan for a small project according to an established standard that includes the following:
  - a. The use of a software estimation model to estimate the cost, duration and personnel requirements for the project.
  - b. The development of a risk analysis plan for the project.
  - c. The scheduling of the project deliverables and key activities.

**Department of Computing and Mathematics  
COURSE OUTLINE FOR MSE510, Continued**

**TEXTBOOK:**

TBD

**SUGGESTED SUPPLEMENTAL MATERIALS:**

- a. A computer laboratory with UNIX-based/X window workstations and a variety of software project planning tools.
- b. SEI Academic Series Videotapes
- c. Various research papers
- d. Project Management Institute - Project Management Body of Knowledge

**PREREQUISITE KNOWLEDGE BY TOPIC:**

1. High-level Computer Programming
2. Computer Organization

TOPIC	CLASS HOURS	COURSE OBJECTIVES
1. Introduction	1	Understand the purpose of, and need for software project management
2. Cost Estimation	5	Understand tools and techniques for project cost estimation
3. Resource Management	2	Understand tools and techniques for managing human and technical resources on a project
4. Plan Organization and Contents	3	Understand the purpose and contents of a project management plan
5. Team Organization	2	Understand team dynamics and the use of teams to successfully manage a software project
6. Risk Management	3	Understand the tools and techniques for project risk management
7. Configuration Management	6	Understanding of configuration management and its role in a software project
8. People Management	5	Understanding human resource management on a software project
9. Legal Issues	2	Understanding the legal ramifications of software projects
10. Assessment	2	Assessment of the project management capability
11. Management and Planning Tools	3	Survey of project management tools

**LABORATORY:**

None

**COMPUTER USAGE:**

Occasional use as a learning tool in the classroom.

**GRADING SYSTEM:**

Assignments include the following: oral and written reports on various aspects of project management; and project planning exercises based on case studies and concerned with cost estimation, risk management, scheduling, configuration management and team management. The final evaluation will be based on a number of class assignments, research topics and presentations, a two-hour comprehensive final exam as well as the completeness and quality of all assignments.

**ESTIMATED CONTENT:**

<b>Skills:</b>	<b>50%</b>
<b>Content:</b>	<b>50%</b>