



Course description:

Skills necessary to lead a project team, understand the relationship of software development to overall product engineering, estimate time and costs, and understand the software process. Advanced topics related to life cycle models, requirements elicitation, configuration, to control environments, quality assurance, and leadership, advanced issues of risk analysis, schedule, costs, team organization, resources, monitoring, and technical approach, Capability Maturity Model and the technology and practices associated with each and a variety of software standards.

Aims of the course:

1. Provide students how to manage the project including: planning, SW modeling, cost evaluation, and scheduling.
2. Discuss project scheduling methods.
3. Explain in deep risk management.
4. Explain in deep resources management.
5. Explain in deep monitoring and control.
6. Explain in deep managing people, working in teams and managing contract in software environment.
7. Explain in deep software quality.

Intended Learning Outcomes: (ILOs)

Successful completion of this course should lead to the following learning outcomes:

A- Knowledge and understanding (students should):-

1. Understand a wide range of principles available to the software project management, such as planning, scheduling, risk management, control, and monitoring of all software life-cycle phases.
2. Understand the professional and ethical responsibilities of the practicing of software project management including understanding the need for quality, resource allocation, and managing people, managing contracts, and working in teams.
3. Understand the application of computing in a business context.
4. Solve a wide range of problems related to the software project management.
5. Management of small and large size software.
6. Plan and undertake a major individual project, and prepare and deliver coherent and structured verbal and written plans and reports.
7. Be able to display an integrated approach to the deployment of communication skills, use IT skills and display mature project management literacy; strike the balance between self-

reliance and seeking help when necessary in new situations, and display personal responsibility by working to multiple deadlines in complex activities.

B- Intellectual skills with ability to:-

1. Plan, schedule, control, and monitoring software projects.
2. Manage people, manage contract, and allocate resources..

C- Subject Specific Skills:

1. Control, monitor, and working in teams.
2. Deploy effectively the project management tools to solve practical problems.

D- Transferable skills – with ability to:-

1. Effectively communicate both orally and in writing plans and reports using appropriate tools.
2. Employ scientific methods in the solution of problems.

Course structures:

Week	Credit Hours	ILOs	Topics	Teaching Procedure	Assessment methods
1,2,3	9	A1,A3, A6,A7	Introduction To Software Project Management	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Mid Exam c) Final Exam d) Activity file
4,5	6	A1,A3, A6,A7,B1	Advanced activity planning Advanced Project schedule Advanced Network planning model	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) MidExam c) Final Exam d) Activity file
6,7,8	9	A1,A2, A4, A6,D1, D2	Project risk management Risk prioritization Risk reduction leverage Using PERT to evaluate risks	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) MidExam c) Final Exam d) Activity file
9,10,11	9	A2,D1 C2	Resource allocation Resource histogram Critical path Allocating individual Cost schedule	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) MidExam c) Final Exam d) Activity file
12	3	A1,C1, C2	Monitoring and control	Presentation methods and	Diagnostic tests to identify the students level and areas



			Assessing progress Cost monitoring Change control	techniques, Sources of information and Instructional Aids	of weakness Formal (stage) evaluation a) Class Participation b) Mid Exam c) Final Exam d) Activity file
13	3	A2,D1, B2	Types of contracts Time and Material Contract management	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) MidExam c) Final Exam d) Activity file
14	3	A2,B2, A5	Managing people and organizing teams Job satisfaction Managing team rules Leadership styles	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) Mid Exam c) Final Exam d) Activity fil
15	6	A2,D2	Software quality	Presentation methods and techniques, Sources of information and Instructional Aids	Diagnostic tests to identify the students level and areas of weakness Formal (stage) evaluation a) Class Participation b) MidExam c) Final Exam d) Activity fil

References:

Text Book: Text Book:B. Hughes and M. Cotterell. Software Project management. McGraw-Hill, 2009.

Optional:

- Software Project Management, Rajiv Chopra, 2014.
- Software Project Management, Bharat Agarwal, ShivangiDhall, and SumitTayal, 2011.
- Software Project Management, K. Sutha and T. Jebeula, 2015

Assessment Methods:

Methods	Grade	Date
Assessment	Weight	
-Mid Exam	30%	
-Final Exam	40%	



- Final Exam		
Presentation/participation	10%	
Assignments research proposal	10% 10%	