

5 years Integrated M.Sc. (IT) – Semester 6
Lesson Planning
060010607-DSE13 Software Project Management

Objective: To enable students to learn Capability Maturity Model, relate CMM with project processes and examining various stages in the life cycle of a typical software project

Course Outcomes:

- C01: Draw proposal and analyse the requirements.
 C02: Plan the processes, estimate the efforts and design the schedule.
 C03: Comprehend the quality planning and risk assessment.
 C04: Develop the project plan and configuring the processes of project.
 C05: Build, test and review the project.
 C06: Prepare defect analysis report, audit report and project closure.

Unit	Unit Name	Sub Unit	Topics	No. of Lectures	Reference Chapter/Additional Reading	Teaching Methodology
1	Introduction to Project Initiation	1.1	Process-Based Approach for Project Execution	2	PJ#1, Page No 2-5, SPMIP#1, Page No. 14	Chalk and Talk, Topic Presentation
		1.2	Capability Maturity Model for Software	2	PJ#1, Page No 5-15, SPMIP#1, Page No. 5	
		1.3	Proposals and Contracts	2	PJ#2, Page No 37-43	
		1.4	Requirement Specification and Management	3	PJ#3, Page No 45-62	
2	Project Planning with Effort Estimation	2.1	Development process and Process Tailoring	3	PJ#4, Page No 73-94, SPMIP#2, Page No. 24	Chalk and Talk, Topic Presentation
		2.2	Software Metrics and Process Management	2	PJ#5, Page No 97-102	
		2.3	Process Database	1	PJ#5, Page No 103-110, SPMIP#8, Page No. 136	
		2.4	Process Capability Baseline	1	PJ#5, Page No 110-117, SPMIP#8, Page No. 140	
		2.5	Types of Effort Estimation	2	PJ#6, Page No 119-135, SPMIP#3, Page No. 40	
		2.6	Scheduling	1	PJ#6 Page No 136-142	
3.	Quality Planning and Risk Management	3.1	Introduction to Quality Management	1	PJ#7, Page No 145-150, SPMIP#4, Page No. 64	Chalk and Talk, Topic Presentation
		3.2	Quantitative Quality Management Planning	1	PJ#7, Page No 151-157, SPMIP#4, Page No. 66	
		3.3	Need for Risk Management	1	PJ#8, Page No 159-163, SPMIP#5, Page No. 79	
		3.4	Risk Assessment	1	PJ#8, Page No 163-166, SPMIP#5, Page No. 83	
		3.5	Risk Control	1	PJ#8, Page No 166-170, SPMIP#5, Page No. 86	
4.	Project Management Plan and Configuration Management	4.1	Introduction to Project Management Plan	1	PJ#9 Page No 175-178, SPMIP#6, Page No. 95	Chalk and Talk, Topic Presentation
		4.2	Configuration Management Concepts	1	PJ#10 Page No 195-200, SPMIP#6, Page No. 96	
		4.3	Configuration Management Process	2	PJ#10 Page No 200-206, SPMIP#6, Page No. 99	
		4.4	Document Control	1	PJ#10 Page No 207-208	

5.	Project Lifecycle Execution and Peer Review	5.1	Types of Design	1	PJ#11, Page No 219-224	Chalk and Talk, Topic Presentation
		5.2	Project Building	1	PJ#11, Page No 224-226	
		5.3	System Testing	1	PJ#11, Page No 226-231	
		5.4	Acceptance and Installation	1	PJ#11, Page No 231-232	
		5.5	Peer Review Process and Data Collection	2	PJ#12, Page No 233-245	
		5.6	Monitoring and Control	1	PJ#12, Page No 245-250	
		5.7	Introduction of Reviews and NAH Syndrome	2	PJ#12, Page No 252-256	
6.	Project Monitoring and Termination	6.1	Project Monitoring Data Collection	2	PJ#13, Page No 259-271, SPMIP#9, Page No. 177	Chalk and Talk, Topic Presentation
		6.2	Project Tracking	2	PJ#13, Page No 271-275, SPMIP#9, Page No. 179	
		6.3	Quantitative Monitoring and Control	2	PJ#13, Page No 275-280	
		6.4	Defect Analysis and Prevention	2	PJ#13, Page No 283-287, SPMIP#9, Page No. 195	
		6.5	Audit Process and Audit Analysis	1	PJ#14, Page No 291-304, SPMIP#9, Page No.205	
		6.6	Project Closure Analysis and Archiving	1	PJ#15, Page No 307-314, SPMIP#9, Page No. 213	
Text Book:						
1. Pankaj Jalote, CMM in Practice, Person Education. [PJ#]						
Reference Book:						
1. Pankaj Jalote, Software Project Management in Practice, Addison-Wesley Professional.						
2. Pankaj Jalote, Software Project Management in Practice, Addison-Pearson. [SPMIP#]						
3. Bob Hughes, Mike Cotterell, Software Project Management, Tata McGraw Hill.						

Course Objectives and Course Outcomes Mapping:

- To enable students to learn Capability Maturity Model, relate CMM with project processes : C01, C02, C04.
- To examining various stages in the life cycle of a typical software project: C01, C02, C03, C04, C05, C06

Course Units and Course Outcomes Mapping:

Unit No.	Unit	Course Outcome					
		C01	C02	C03	C04	C05	C06
1	Introduction to Project Initiation	✓			✓		
2	Project Planning with Effort Estimation		✓				
3	Quality Planning and Risk Management			✓			
4	Project Management Plan and Configuration Management	✓			✓		
5	Project Lifecycle Execution and Peer Review					✓	
6	Project Monitoring and Termination						✓