

MCA I Year I Semester Subject Code: 24MCA1006 Software Engineering

Contact Hour	Unit No.	Topic Name	Teaching Methodology	Remarks
1	1	Introduction to Software Engineering – Evolving Role of Software	Blackboard	
2	1	Changing Nature of Software	Blackboard	
3	1	Software Myths	Blackboard	
4	1	Software Problem: Cost, Schedule, and Quality	Blackboard	
5	1	Scale and Change	Blackboard	
6	2	Introduction to Software Process – Process and Project	Blackboard	
7	2	Component Software Process	Blackboard	
8–9	2	Software Development Models: Waterfall, Prototyping, Iterative Development	Blackboard	
10–11	2	RUP, Time Boxing, Extreme Programming, Agile Process	Blackboard	
12	2	Using Process Models in Projects	Blackboard	
13–14	2	Project Management Process Overview	Blackboard	
15	3	Value of Good SRS	Blackboard	
16–17	3	Requirements Process & Specification	Blackboard	
18–19	3	Functional Specifications using Use-Cases	Blackboard	
20	3	Other Analysis Approaches	Blackboard	
21	3	Validation of Requirements	Blackboard	
22	3	Planning a Software Project – Effort Estimation	Blackboard	
23	3	Project Schedule and Staffing	Blackboard	
24	3	Quality & Risk Management Planning	Blackboard	
25	3	Project Monitoring and Detailed Scheduling	Blackboard	
26	4	Role of Software Architecture & Views	Blackboard	
27–28	4	Components & Connector View, Architecture Styles	Blackboard	
29	4	Documenting and Evaluating Architectures	Blackboard	
30	4	Design Concepts Overview	Blackboard	
31	4	Function-Oriented Design	Blackboard	
32	4	Object-Oriented Design	Blackboard	
33	4	Detailed Design, Design Verification	Blackboard	
34	4	Design Metrics	Blackboard	
35	5	Programming Principles and Guidelines	Blackboard	
36	5	Incremental Code Development &	Blackboard	

		Managing Evolving Code		
37	5	Unit Testing – Concepts & Techniques	Blackboard	
38	5	Integration Testing	Blackboard	
39	5	Code Inspection	Blackboard	
40	5	Coding Metrics	Blackboard	
41	5	Testing Concepts & Process	Blackboard	
42-43	5	Black-Box Testing	Blackboard	
44-45	5	White-Box Testing	Blackboard	
46-48	5	Testing Metrics	Blackboard	