DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

LESSON PLAN & WORK-DONE DIARY FOR AY:2024-25,EVEN SEMESTER

Course with Code: Software Engineering				Faculty: Ms. Divyashree B K				Semester & Section: II Sem	
Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered		TLP Executed	Remarks if any deviation
MODULE-1									
1		Introduction to Software Engineering: Definition, Evolution, Characteristics	PPT & CHALK	1		Introduction to Software Engineering: Definition, Evolution, Characteristics		PPT	
2		Importance of Software Engineering in Industry	PPT & CHALK	2		Importance of Software Engineering in Industry		PPT	
3		Software Process Models: Overview, Waterfall Model	PPT & CHALK	3		Software Process Models: Overview, Waterfall Model		PPT & CHALK	
4		Incremental & Evolutionary Models (RAD, Spiral)	PPT & CHALK	4					
5		Specialized Process Models: Prototyping, Component-Based Development	PPT & CHALK	5					
6		Introduction to Agility: Agile Manifesto & Principles	PPT & CHALK	6					
7		Agile Process Models: Scrum vs Extreme Programming (XP)	PPT & CHALK	7					
8		XP Process and Case Study: Agile Implementation in Real Projects	PPT & CHALK	8					

MODULE-2							
9		Introduction to Requirements Engineering: Types of Requirements,Techniques for Requirements Gathering (Interviews, Surveys, Observation)	PPT & CHALK					
10		Software Requirements Specification (SRS): Format and Components	PPT & CHALK					
11		Quality Attributes of SRS (Correctness, Completeness, Verifiability)	PPT & CHALK					
12		Formal System Specification: Introduction, Benefits, Finite State Machines: Concepts and Notation	PPT & CHALK					
13		Petri Nets: Concepts, Application in Concurrency, UML Introduction: Use Case Diagrams, Class Diagrams (Basics)	PPT & CHALK					
14		UML Interaction Diagrams: Sequence and Collaboration, UML Activity Diagrams and State Chart Diagrams	PPT & CHALK					
14		Functional Modeling: Data Flow Diagrams (DFDs)	PPT & CHALK					
16		CASE Tools: Definition, Categories, Tools Demonstration (Lucidchart, StarUML etc.)	PPT & CHALK					

		MODULE-3						
17		Software Design Process: Phases, Importance	PPT & CHALK					
18		Design Principles: Abstraction, Modularity, Refinement	PPT & CHALK					
19		Coupling and Cohesion with Examples	PPT & CHALK					
20		Functional Independence and Reusability in Design	PPT & CHALK					
21		Introduction to Design Patterns: MVC and Publish-Subscribe	PPT & CHALK					
22		Design Patterns Continued: Adapter, Command, Strategy	PPT & CHALK					
23		Architectural Styles: Layered, Client-Server, Tiered, Pipe-and-Filter	PPT & CHALK					
24		User Interface Design: Principles, Layouts, and Usability Case Study	PPT & CHALK					

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		MODULE-4						
25		Introduction to Testing: Goals and types	PPT & CHALK					
26		Unit Testing: Techniques and tools	PPT & CHALK					
27		Black Box Testing: Equivalence and Boundary Testing	PPT & CHALK					
28		White Box Testing: Control flow, path testing	PPT & CHALK					
29		Integration, System, Regression Testing	PPT & CHALK					
30		Debugging Techniques, Program Analysis	PPT & CHALK					
31		Symbolic Execution and Model Checking	PPT & CHALK					
32		Case Study: Test Plan and Maintenance Strategy	PPT & CHALK					

		MODULE-5						
33		Software Project Management: Planning, Estimation	PPT & CHALK					
34		Software Configuration Management (SCM): Tools and workflow	PPT & CHALK					
35		Project Scheduling: Gantt, PERT, CPM	PPT & CHALK					
36		DevOps Overview: Principles and culture	PPT & CHALK					
37		Cloud as a Platform and DevOps Lifecycle	PPT & CHALK					
38		Deployment Pipeline: CI/CD Architecture	PPT & CHALK					
39		DevOps Tools: Jenkins, Docker, Git	PPT & CHALK					
40		Case Study: DevOps in a real software project	PPT & CHALK					

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	Activity	Planned	Actual	Remarks
1	Theory Classes	40	40	
2	Assignments/Quizzes/Activity/ Self-study	2/2	2/2	
3	Tutorials/ Extra classes	-	-	
4	Internal Assessments	2	2	
5	ICT based Teaching (% of usage in Curriculum)	100%	100%	
Planning			**Execution**	
Faculty Signature:			**Faculty Signature:**	
HoD Signature:			**HoD Signature:**	

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Divyashree B K