Lesson Plan

Name of Faculty : Anju Godara, Assistant Professor
Discipline : Computer Science & Engineering
Semester : 4th
Subject : Principle of Software Engineering
Lesson Plan Duration : 15 weeks (from Jan, 2024 to June, 2024)
Work Load (Lecture✓Practical) per week (in hours): Lectures03 hours

Theory		Topic covered Date and Remarks	
Lecture Day	Topic (Including Assignment/Test)	Date	HOD
1	Introduction to software and software engineering		
2	The Process, Phases of software development		
3	Software engineering paradigms, software characteristics		
4	Role of 93ftware engineer and software project manager		
5	Software project management plan		
6	Metrics for project size estimation		
7	Software cost estimation, Project scheduling		
8	Personnel planning, Organisational and Team structure		
9	Requirement engineering process		
10	Software requirements		
11	Guidelines for software requirements		
12	Software requirement specification		
13	Characteristics of SRS		
14	Structure of SRS		
15	Structure analysis		
16	Tools of structure analysis-Data flow diagram, Decision table		
17	Decision tree, data dictionary		
18	Structured charts, object oriented analysis		
19	Data modelling, Behavioural modelling		
20	Software configuration management		
21	Software risk		
22	Risk management		
23	Software design fundamentals		
24	Design prindples(structured design and object oriented design)		
	l' Minor Test		
25	Design documentation		
26	User interface design		
27	Coding standard and guidelines		
28	Code verification techniques		
29	Code documentation		
30	Computer aided software engineering(CASE) tools		
31	Characteristics and Advantages of CASE tools		
32	Testing fundamentals		
33	Test Plan and Test Case design		
34	Levels of software testing- Unit testing		
35	Integration testing-Top down integration, Bottom up integration		
36	Regression Testing, smoke testing		
37	System testing- recovery testing, Security testing, Stresstesting		
38	Performance testing, acceptance testing		
39	Alpha Testing, Beta testing		
40	Testing techniques-White box testing		
41	Black Box Testing		
42	Software quality concepts		
43	IS09126, McCall's quality factors		
44	SQA ,SQA activities		
45	Software reviews- review process, Walkthroughs		
46	Formal technical review(FTR)		
47	Detect amplication model		
48	ISO 9000 quality standards		
	2nd Minor Test		
49	Capability maturity model (CMM)		
50	Software reliability		
51	Software maintenance		
52	Software re-engineering		