

## Lesson Plan

**Name of Faculty** : Anju Godara, Assistant Professor of CSE

**Discipline** : CSE (Data Science)

**Semester** : 4<sup>th</sup> (EVEN)

**Subject** : Software Engg.

**Work Load (Lecture/Practical) per week (in hours)** : Lectures-03hours.

Week	Theory		Topic Covered Date and Remarks		
	Lecture Day	Topic(Including Assignment/Test)	Date	HOD	Director-Principal
1 <sup>st</sup>	1	Software Crisis, Software Process, Evolution of Software Engineering			
	2	Software Characteristics, Software Metrics and SDLC			
	3	Software Life Cycle Models: Water Fall Model, Increment Process Model			
2 <sup>nd</sup>	4	Evolutionary Process Models, Unified Process. Selection of Life Cycle Model.			
	5	Software Requirements, Analysis and Specifications: Requirement Engineering, Requirements Elicitation			
	6	Requirements Analysis: Data Flow Diagram, Data Dictionary,			
3 <sup>rd</sup>	7	Entity- Relationship Diagrams, Decision Table, Decision Tree and Structured Charts.			
	8	Requirements Documentation and Requirements validation.			
	9	Software Project Management: Size Estimation, Cost Estimation			
4 <sup>th</sup>	10	<b>Assignment 1<sup>st</sup></b>			
	11	Constructive Cost Model (COCOMO), Putnam Resource Allocation Model.			
	12	Software Risk Management: Software Risks, Risk Identification			
5 <sup>th</sup>	13	Risk Mitigation, Monitoring, and Management, RMMM Plan..			
	14	Software Design: Software Design Fundamentals			
	15	Design Principles, Strategy of Design			
6 <sup>th</sup>	16	Function Oriented Design, and Object-Oriented Design			
	17	IEEE Recommended Practice for Software Design Descriptions			
	18	Software Quality: Basic Concepts, ISO 9126, McCall's Quality Factors			
7 <sup>th</sup>		<b>1<sup>st</sup> Minor Test</b>			
8 <sup>th</sup>	19	Software Quality Assurance, SQA Activities			
	20	ISO 9000 Quality Standards, and CMM			
	21	REVISION			
9 <sup>th</sup>	22	Software Testing: Testing fundamentals			
	23	Verification and Validation			
	24	Test Plan, Test Case			
10 <sup>th</sup>	25	<b>Assignment 2<sup>nd</sup></b>			
	26	Levels of Software Testing: Unit Testing			
	27	Integration Testing, Top Down and Bottom-up Testing			
11 <sup>th</sup>	28	Alpha and Beta Testing			
	29	System Testing			
	30	White Box Testing			
12 <sup>th</sup>	31	Black Box Testing			
	32	Debugging and Software Testing Tools. Maintenance.			
	33	Reengineering: Software Maintenance			
13 <sup>th</sup>	34	Software Supportability			
	35	Reengineering			
	36	Business Process Reengineering			
14 <sup>th</sup>		<b>2<sup>nd</sup> Minor Test</b>			
15 <sup>th</sup>	37	Software Reengineering			
	38	Reverse Engineering			
	39	Restructuring, Forward Engineering			