

**GOAPAL KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**GOURAHARI VIHAR, PO: RANIPUT, JEYPORE – 764 005**

**LESSON PLAN**

**Name of the Subject: CSPC3005 SOFTWARE ENGINEERING**

**Session : 2025-26**

**Name of the Faculty: Amod kumar Bagh**

**Semester: 6th**

**Branch: Computer Sc. & Engg.**

**Semester From: Feb, 2026**

**40 HOURS**

<b>Week</b>	<b>Day</b>	<b>THEORY TOPICS</b>	<b>Classes</b>
		<b>Module-I: Overview Of Software Engineering</b>	<b>6</b>
1	1	Nature of Software, Software Engineering,	1
	2	Software process, project, product,	1
	3	Process Models, Classical Evolutionary models	1
2	4	Introduction to Agility - Agile Process-Extreme programming - XP Process –	1
	5	Principles of Agile Software Development framework - Overview of System Engineering	1
	6		1
3		<b>Module-II: Introduction To Software Project Management</b>	<b>8</b>
	7	Planning, Scope, Work break-down structure,	1
	8	Milestones, Deliverables,	1
	9	Cost and Estimates - (Human Resources, Time-scale, Costs),	1
4	10	Risk Management,	1
	11	RMMM Plan, CASE TOOLS,	1
	12	Agile Project Management, Managing team dynamics and communication,	1
5	13	Metrics and Measurement	1
	14		1
		<b>Module-III: Modelling Requirements</b>	<b>08</b>
	15	Software requirements and its types,	1
6	16	Requirements Engineering process,	1
	17	Requirement Elicitation,	1
	18	System Modeling –	1
	19	Requirements Specification and Requirement Validation,	1

7	20	Requirements Elicitation techniques,	1
	21	Requirements management in Agile.	1
8	22		1
	<b>Module - IV: (09 Hours)</b> Software Design		<b>9</b>
	23	Design concepts and principles -	1
	24	Abstraction - Refinement - Modularity	1
9	25		1
9	26	Cohesion coupling,	1
	27	Architectural design, Detailed Design	1
	10	28	1
10	29	Transaction Transformation, Refactoring of designs,	1
	30	Object oriented Design User-Interface Design	1
	11		31
11	<b>Module - V: (09 Hours)</b> <b>Validation And Verification</b>		<b>9</b>
	32	Strategic Approach to Software Testing, Testing Fundamentals Test Plan,	1
	33	Test Design, Test Execution,	1
	12	34	Reviews, Inspection and Auditing –
35		Regression Testing – Mutation Testing - Object oriented testing -	1
36		Testing Web based System - Mobile App testing –	1
13	37	Mobile test Automation and tools – DevOps Testing – Cloud and Big Data Testing,	1
	38	Software Maintenance, Types of Maintenance, -	1
	39	Software Configuration Management – Overview – SCM Tools.	1
14	40	Re-Engineering, Reverse Engineering, Software Reuse	1