

कार्यालय प्राचार्य, शासकीय पॉलीटेक्निक जशपुर (छ. ग.)

ग्राम- झरगाँव, पोस्ट- घोलेग, तह.- जशपुर, जिला- जशपुर छत्तीसगढ़ पिन 496338

Website: www.gpjashpur.ac.in E-Mail: govtpolyjashpur@gmail.com

LESSON PLAN SESSION JUL – DEC 2025

SUBJECT: **SOFTWARE ENGINEERING** SEMESTER: **5TH** BRANCH: - **COMPUTER SCIENCE & ENGINEERING**

UNIT NUMBER	NAME OF THE TOPIC	NO OF CLASS REQUIRED	REMARK
Unit 01: Fundamentals of Software Engineering	1.1 Software Engineering, 1.1.1 Software Characteristics	01	
	1.1.2 Changing Nature of software	01	
	1.1.3 Role of software engineering in real-time applications		
	1.1.4 Software engineering –a layered approach	01	
	1.1.5 Process Framework		
	1.2 Software life cycle, 1.2.1 Waterfall Model	01	
	1.2.2 Incremental process Model	01	
	1.2.3 Evolutionary process models, Spiral Model 1.2.3 Prototype Model	01 01	
Unit 02: Software Engineering Practices & Requirement Analysis	2.1 Essence of software engineering practice	01	
	2.2 Core principles	01	
	2.3 Requirement Engineering Tasks	02	
	2.3.1 Initiating requirements engineering process	01	
	2.4 Requirement Analysis	01	
	2.4.1 Analysis modeling approaches	01	
Unit 03: Software design	3.1 Design within the context of software engineering	01	
	3.2 Design process & design Quality	02	
	3.3 Design concepts	01	
	3.4 Mapping data flow into a software architecture	02	
	3.5 Golden rules for interface design	01	
Unit 04: Software Testing	4.1 Software testing fundamentals	02	
	4.2 A strategic approach to software testing		
	4.3 Test strategies for conventional software	01	
	4.4 Validation testing	01	
	4.5 System testing	01	
	4.6 Black box & white box testing	02	
	4.7 Control structure testing	01	
Unit 05: Software Project Management	5.1 The management Spectrum 5.2 the people, 5.3 The product 5.4 The process, 5.5 The project	02	
	5.6 the W5HH Principle	01	
	5.7 metrics in the process & project domains	01	
	5.8 Software measurement	02	
	5.9 metrics for software quality		
	5.10 software scope, feasibility & resources	01	
	5.11 Software project estimation	01	
	5.12 decomposition techniques	02	
	5.13 Empirical estimation models		
	5.14 software reliability	01	
Total Class Required		40	

Lecturer Name & Sign: - KAMLESH KUMAR SAHU
LECTURER, CSE, GPJ

HOD CSE Sign: -