

SOCIETY OF ST. FRANCIS XAVIER, PILAR'S FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING (Approved by AICTE & Affiliated to University of Mumbai)

> Fr. Agnel Ashram, Bandstand, Bandra (W), Mumbai - 400 050. Phone : (022) 6711 4000, 6711 4101, 6711 4104 Website : www.frcrce.ac.in • Email : crce@fragnel.edu.in

# **Computer Engineering** (Academic Year :2023-2024)

Course Code: CSC502				
Course Name: Software Engineering				
Course Teacher: Asst. Prof. Ashwini Pansare				
Course Outcomes (CO): At the End of the course students will be able to				
CSC502.1	Identify requirements and assess the process models.			
CSC502.2	Plan, schedule and track the progress of the software projects.			
CSC502.3	Design the software projects.			
CSC502.4	Apply software testing techniques to software projects.			
CSC502.5	Identify risks and manage the change to assure quality in software projects.			



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## **Course Lesson Plan**

Sr.	Proposed	Actual Date	Topics	СО	Teacher's Remark	HoD's Remark
No.	Date					
1	10-07-23		Syllabus, Introduction to COs, Introduction to Software Engineering			
2	12-07-23		SDLC Phases, Waterfall model	CO1		
3	13-07-23		Iterative model, Incremental model and Prototyping model	CO1		
4	17-07-23		Spiral model and RAD model	CO1		
5	19-07-23		Agile model basics, introduction to scrum	CO1		
6	20-07-23		Scrum framework, Scrum animation video	CO1		
7	24-07-23		Extreme Programming	CO1		
8	28-07-23		Kanban Process framework, difference between scrum and Kanban	CO1		
9	31-07-23		СММ	CO1		
10	03-08-23		Introduction to requirement engineering, Requirement engineering	CO1		
			Process	<b>G</b> 0 1		
11	04-08-23		Requirement elicitation Methods	COI		
12	03-08-23		Requirement modelling (use case, activity and swim lane diagram	CO1		
13	09-08-23		Requirement modelling (DFD and Sequence diagram)	CO1		
14	11-08-23		Software Project Estimation, size-oriented metrics	CO2		
	15-08-23		Independence Day			
	16-08-23		Parsi New Year			
16	17-08-23		Function Point estimation	CO2	Assignment 1	
17	18-08-23		Numerical on LOC and FP, conduction of quiz	CO2	Quiz 1 on Modules 1-2	
18	24-08-23		Cocomo Model	CO2		
19	25-08-23		Intermediate and Detailed Cocomo	CO2		
	29-08-23 to		Unit Test-1			
	31-08-23					



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20	01-09-23	Project scheduling, principles of scheduling, creating a task network	CO2	Research paper-based assignment	
21	04-09-23	Software Design principles	CO3		
22	07-09-23	Software design concepts	CO3		
23	08-09-23	software design concepts continued, Coupling and cohesion	CO3		
24	11-09-23	architectural design types, Interface design	CO3		
25	14-09-23	Effective Modular Design	CO3		
	15-09-23	software testing, unit testing, integration testing, regression testing	g CO4		
	19-09-23 to 22-09-23	Shri Ganesh Festival			
26	25-09-23	validation testing, system testing, intro to white box testing	CO4	Quiz 2 on Modules 3-4	
	28-09-23	Anant Chaturdashi			
	29-09-23	basis path testing, control structure testing	CO4		
	02-10-23	Mahatma Gandhi Jayanti			
28	05-10-23	Data flow testing, black box testing- boundary value and equivalence partitioning	CO4		
29	06-10-23	Types of Software Maintenance, Re-Engineering,	CO4		
	09-10-23 to 13-10-23	Unit Test 2			
31	16-10-23	Reverse Engineering, what is Risk Analysis & Management? Its steps, Types of risks	CO5		
32	19-10-23	Risk Mitigation, Monitoring and Management Plan (RMMM).	CO5		
33	20-10-23	Formal Technical Reviews, Software Reliability	CO5	Quiz 3 on Modules 5-6	
42	21-10-23	Remedial Session			
	23-10-23	The Software Configuration Management (SCM process), Version Control and Change Control	CO5		
		University ESE Examination			



Textbooks:			
1	Roger Pressman, "Software Engineering: A Practitioner's Approach", 9th edition, McGraw-Hill Publications, 2019		
2	Ian Sommerville, "Software Engineering", 9th edition, Pearson Education, 2011		
3	Ali Behfrooz and Fredeick J. Hudson, "Software Engineering Fundamentals", OxfordUniversity Press, 1997		
4	Grady Booch, James Rambaugh, Ivar Jacobson, " <i>The unified modeling language user guide</i> ", 2 <sup>nd</sup> edition, Pearson Education, 2005		
References:			
1	Pankaj Jalote, "An integrated approach to Software Engineering", 3rd edition, Springer, 2005		
2	Rajib Mall, "Fundamentals of Software Engineering", 5th edition, Prentice Hall India, 2014		
3	Jibitesh Mishra and Ashok Mohanty, "Software Engineering", Pearson, 2011		
4	Ugrasen Suman, "Software Engineering – Concepts and Practices", Cengage Learning, 2013		

5 Waman S Jawadekar, "Software Engineering principles and practice", McGraw Hill Education, 2004

**Course Instructor: Prof: Ashwini Pansare**