

AGILE METHODOLOGIES

Course Code	23CS4702A	Year	IV	Semester	I
Course Category	PE-V	Branch	CSE	Course Type	Professional Elective
Credits	3	L – T – P	3-0-0	Prerequisites	Software engineering
Continuous Evaluation:	30	Semester End Evaluation:	70	Total Marks:	100

Course Outcomes		
Upon successful completion of the course, the student will be able to:		
CO1	Understand fundamentals of Agile methodology and agile principles.	L2
CO3	Apply Scrum principles	L3
CO4	Apply practices of XP and Incremental design.	L3
CO5	Analyze methods to eliminate waste.	L4

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2
CO1	3	2										2	
CO2	2	2										2	
CO3	3	2										3	2
CO4	2	2										3	2
CO5	2	2										3	3

Syllabus		
Unit No.	CONTENTS	Mapped CO
I.	Learning Agile: Agile, Getting Agile into your brain, Understanding Agile values, No Silver Bullet, Agile to the Rescue. A fractured perspective, The Agile Manifesto, Understanding the Elephant, Where to Start with a New Methodology.	CO1
II.	The Agile Principles: The 12 Principles of Agile Software, The Customer Is Always Right, Delivering the Project, Better Project Delivery for the Ebook Reader Project. Communicating and Working Together, Project Execution—Moving the Project Along, Constantly Improving the Project and the Team. The Agile Project: Bringing All the Principles Together	CO2
III.	SCRUM and Self-Organizing Teams: The Rules of Scrum, Act I: I Can Haz Scrum, Everyone on a Scrum Team owns the Project, Status Updates Are for Social Networks!, The Whole Team Uses the Daily Scrum, Feedback and the Visibility-Inspection-Adaptation Cycle, The Last Responsible Moment, Sprinting into a Wall, Sprints, Planning, and Retrospectives. Scrum Planning And Collective Commitment: Not Quite Expecting the Unexpected, User Stories, Velocity, and Generally Accepted Scrum Practices, Victory Lap, Scrum Values Revisited.	CO3

IV.	XP And Embracing Change: Going into Overtime, The Primary Practices of XP, The Game Plan Changed, but We're Still Losing, The XP Values Help the Team Change Their Mindset, An Effective Mindset Starts with the XP Values, The Momentum Shifts, Understanding the XP Principles Helps You Embrace Change. XP, Simplicity, and Incremental Design: Code and Design, Make Code and Design Decisions at the Last Responsible Moment, Final Score.	CO4
V.	Lean, Eliminating Waste, and Seeing the whole: Lean Thinking, Creating Heroes and Magical Thinking. Eliminate Waste, Gain a Deeper Understanding of the Product, Deliver As Fast As Possible. Kanban, Flow, and Constantly Improving: The Principles of Kanban, Improving Your Process with Kanban, Measure and Manage Flow, Emergent Behavior with Kanban. The Agile Coach: Coaches Understand Why People Don't Always Want to Change. The Principles of Coaching.	CO5

Learning Resources	
Text Books	
1. Andrew Stellman, Jill Alison Hart, Learning Agile, O'Reilly, 2015.	
Reference Books	
1. Andrew stellman, Jennifer Green, Head first Agile, O'Reilly, 2017. 2. Rubin K , Essential Scrum : A practical guide to the most popular Agile process, Addison-Wesley, 2013	