

<b>COURSE TITLE</b>	<b>AGILE &amp; DEVOPS FUNDAMENTALS</b>
<b>COURSE CODE</b>	<b>05MF0307</b>
<b>COURSE CREDITS</b>	<b>2</b>

**Objective:**

- 1 Understand Agile principles and their relevance in FinTech product development.
- 2 Apply Scrum and Kanban frameworks to manage FinTech development cycles.
- 3 Demonstrate understanding of DevOps practices including CI/CD and version control.
- 4 Analyze Agile tools and practices to plan and track a FinTech MVP project.

**Course Outcomes:** After completion of this course, student will be able to:

- 1 Analyze the Agile Manifesto and its relevance in the context of FinTech product development
- 2 Illustrate the use of Scrum and Kanban frameworks for managing FinTech project tasks
- 3 Demonstrate the integration of DevOps practices such as CI/CD pipelines and version control
- 4 Analyze the use of Agile tools (JIRA, Trello) for sprint planning and task tracking in a FinTech MVP project

**Pre-requisite of course:** Fundamental of Software Development Life Cycle

**Teaching and Examination Scheme**

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
2	0	0	50	30	20	0	0

Contents : Unit	Topics	Contact Hours
1	<b>Agile Mindset in FinTech</b> Fundamentals of Software Development Life Cycle, Agile Manifesto & Principles, Benefits of Agile in FinTech (fast iteration, compliance updates, scale), Real case: Agile in Paytm/PhonePe	6
2	<b>Scrum &amp; Kanban Essentials</b> Scrum roles (PO, SM, Dev), Scrum ceremonies (Sprint planning, review, retro), Kanban board simulation	8
3	<b>DevOps for FinTech</b> DevOps culture: CI/CD basics, Git-based version control, Deployment pipelines: Jenkins/GitHub Actions	8
4	<b>Tools &amp; Mini Project</b> Using JIRA or Trello to track tasks, User stories & acceptance criteria, Map a FinTech MVP using Scrum board	8
<b>Total Hours</b>		<b>30</b>

**Textbook :**

- 1 Scrum: The Art of Doing Twice the Work in Half the Time, Sutherland, Crown Business., 2014
- 2 The DevOps Handbook: How to Create World-Class Agility, Reliability, & Security in Technology Organizations, Kim, G., Debois, P., Willis, J., & Humble, J. , IT Revolution Press, 2016

**References:**

- 1 Agile Project Management with JIRA, Agile Project Management with JIRA, Sagar R. , Packt Publishing, 2016

**Suggested Theory Distribution:**

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking / Creative
10.00	20.00	25.00	25.00	10.00	10.00

**Instructional Method:**

- 1 PPT
- 2 Project Based
- 3 Boardwork