UNIVERSITY INSTITUTE OF COMPUTING

Agile Methodology

(24CAT-656)

Unit-2- Syllabus

Unit-2	Agile	Lecture Hours:10
Agile Project Management	Project Management introduction, Agile Scrum, Project management methodology, Selection of right project management methodology, Continuous integration and continuous delivery (CI/CD) in agile development.	
Scrum	Scrum framework, Scrum Roles, Agile Kanban, Agile Vs. Scrum. Product Backlog, Scrum Practices, Process flow of Scrum Methodologies,\	
Agile Design	Agile Daily Stand-up, Sprint Review meeting vs Daily Stand-up meeting in Agile, Definition of Done, Agile Design, Retrospective in Agile development.	

CONTENT OF THE SYLLABUS

- **TEXT BOOKS**

T1 David J. Anderson and Eli Schragenheim, Agile Management for Software Engineering: Applying the Theory of Constraints for Business Results, Prentice Hall, 2003.

T2 Hazza and Dubinsky, Agile Software Engineering, Series: Undergraduate Topics in Computer Science, Springer, 2009.

T3 Agile Software Development Ecosystems by Jim Highsmith, Addison-Wesley 2002, ISBN 0201760436.

- **REFERENCES**

R1 Craig Larman, Agile and Iterative Development: A Managers Guide, Addison-Wesley, 2004.

R2 Kevin C. Desouza, Agile Information Systems: Conceptualization, Construction, and Management, Butterworth-Heinemann, 2007.

What is a project management methodology?

- A project management methodology is a set of principles and practices that guide you in organizing your projects to ensure their optimum performance.
- No two projects are exactly the same (even when you're using handy features like project templates to replicate your past successes).
- And when you factor in the different goals, KPIs and production methods of not only different types of teams but also different types of *industries*, it makes sense that there's no one-size-fits-all approach to managing a project.

Selecting the right project management methodology?

- **Cost and budget:** What sort of budget are you working with? Is there room for that to change if necessary, or is it essential that it stays within these predetermined limits?
- **Team size:** How many people are involved? How many stakeholders? Is your team relatively compact and self-organizing, or more sprawling, with a need for more rigorous delegation?
- **Ability to take risks:** Is this a huge project with a big impact that needs to be carefully managed in order to deliver Very Serious Results? Or is it a smaller-scale project with a bit more room to play around?

How do you choose the right project management methodology?

- **Flexibility:** Is there room for the scope of the project to change during the process? What about the finished product?
- **Timeline:** How much time is allotted to deliver on the brief? Do you need a quick turnaround, or is it more important that you have a beautifully finished result, no matter how long it takes?
- **Client/stakeholder collaboration:** How involved does the client/stakeholder need — or want — to be in the process? How involved do you need — or want — them to be?

The project management methodologies list

1. Waterfall methodology
2. Agile methodology
3. Scrum methodology
4. Kanban methodology
5. Scrumban methodology
6. eXtreme programming (XP) methodology
7. Adaptive project framework (APF) methodology
8. Lean methodology
9. Critical path method
10. Critical chain project management

The project management methodologies list

11. New product introduction (NPI)
12. Package enabled reengineering (PER)
13. Outcome mapping
14. Six Sigma
15. PMI's PMBOK
16. PRINCE2 methodology
17. Rapid application development (RAD) methodology

THANK YOU