

Introduction to Agile and Scrum

Course Summary

Description

This class provides a high-level conceptual overview of the concepts, principles and practices that are the foundation of both Agile practices in general and Scrum in particular. Agile development concepts were not developed by the software community but were adapted from agile and adaptive methods in engineering and other disciplines. The Agile mindset – the practices, thinking and perspectives brought to bear in an Agile approach – have consistently proven to be effective and efficient in responding to complex and changing challenges and situations

The first part of the session examines the concept and practice of Agility in general, how it naturally is supported by and integrates with other kinds of methodologies like rapid application development, design thinking (like the Stanford Design Process), lean development and others.

The second part of the course examines how and why the Agile approach was adapted into software development – the reasons why it has emerged as a popular and dominant way of developing software. In this section, the class looks at the difference between successful Agile teams and unsuccessful ones and explores the factors that are critical for success in any Agile development.

The third part of the course is a walkthrough of the SCRUM Agile methodology to provide students with an understanding of how Agile thinking is implemented in SCRUM as well as an understanding of how SCRUM is supposed to work.

Objectives

By the end of this course, students will be able to:

- Describe what Agility is and the type of problems that are best suited to an Agile approach
- Describe the ideas and concepts for the foundation of the Agile development approach as well as why and when we use an Agile approach
- Describe the key success factors for implementing Agile development, the main reasons why Agile development often fails and how to avoid those pitfalls
- Describe how Agile concepts integrate with other creative, development and design processes.
- Describe the key principle behind Agile and what they mean.
- Explain at a high level the SCRUM process and how it should be implemented

Topics

- Agility
- Agile Software Development
- Agile Integration
- Why Agile Fails
- Making Agile Work
- SCRUM
- Next Steps

Audience

This class has no prerequisites and is appropriate for anyone who wants to understand exactly what Agile and SCRUM are. The class is an excellent orientation for those who are about to embark on more intensive Agile training.

Duration

One Day

Introduction to Agile and Scrum

Course Outline

I. *Agility*

- A. The concept of Agility – engineering and other professions
- B. Agility as the foundation for adaptive responses to changing requirements
- C. “Adapt, Improve, Overcome”
- D. Key factors for Agile success – people, process, teamwork and maturity
- E. The Agile mindset and process maturity
- F. When Agile fails – understanding the root causes of the failures

II. *Agile Software Development*

- A. Predictive versus Adaptive software development processes
- B. Pre-Agile software development adaptive processes
- C. Why we need Agile – changes in the software industry that drove its adoption
- D. The Agile Manifesto and principles – what they really mean
- E. The common features of all Agile development methodologies

III. *Agile Integration*

- A. Agile and Lean Engineering – integration with product development
- B. Agile and Design Thinking – integration with design and creative development
- C. Agile and Craftsmanship – integration with professional disciplines
- D. Agile and Quality – integration with process improvement, maturity and quality assurance

IV. *Why Agile Fails*

- A. Culture Clash – organizational barriers to doing Agile
- B. Implementation Failure – doing Agile in name only
- C. People Failure – not having the right people with the right skills
- D. Team Failure – not developing the Agile team effectively
- E. Process Failure – not being mature in following Agile

V. *Making Agile Work*

- A. Best practices for making Agile work
- B. Avoiding the failure points
- C. Examples of different Agile methodologies and how succeed
- D. Laying out a roadmap for Agile success
- E. Developing an Agile mindset at the individual, team and organizational levels.

VI. *SCRUM*

- A. Overview of SCRUM
- B. SCRUM structure – Sprints, backlogs, roles, etc.
- C. SCRUM process – how a SCRUM project is planned and executed

VII. *Next Steps*

- A. Where to go next in your Agile education
- B. Planning a transition to Agile
- C. Setting objectives of implementing Agile