

Agile Courses Offered by The Westfall Team

Agile Software Development - A Survey of Agile Methodologies is a 2-day course designed to provide a survey of various Agile Software Development Methodologies for anyone interested in learning more about Agile Software Development and how the different methodologies compare and contrast with each other.

This course starts with an overview of the concept of methodologies and a discussion of the key agile values and principles derived from the Agile Manifesto.

Course attendees then learn the basic concepts and practices of Scrum, eXtreme Programming (XP), Lean Software Development and Kanban.

This course emphasizes the mindset, values and principles of agile methods so that attendees will learn how to select among them for application in the attendees' work environments.

Method of Instruction: This course is taught through lecture and interactive discussion. The emphasis is on acquiring a clear understanding of agile concepts and methods so that attendees can determine what values, principles, practices and methods may be applicable to their own work environments.

Target Audience: Software quality engineers, developers, testers, project managers, functional managers, requirements analyst, and other software stakeholders who are interested in the planning, management and development of software employing agile methods.

Course Objectives: Upon successful completion of this course attendees will be able to:

- Know what a methodology is and what it should do for you
- Define the intent of the Agile Alliance's Manifesto & Principles and discuss the agile mindset
- Discuss when agile methods may not be appropriate
- Discuss the underlying theory of Scrum and define the Scrum roles
- Understand the Scrum process and how to scale Scrum using Nexus
- Discuss the underlying values of Extreme Programming (XP) and define the principles of XP

- Understand the primary and corollary practices of XP
- Define the principles and understand the practices of Lean Software Development
- Implement Kanban techniques for your agile projects

Course Materials: Student notebooks are designed to provide reference materials that can be utilized by the attendees long after the completion of the course. These materials include:

- Copies of all presentation materials with annotated descriptive notes
- A bibliography of reference materials
- An index and glossary of Agile terms

Other Agile Courses Include:

An Overview of Scrum: A 1-day course consisting of chapters 1 and 2 from our standard Agile Software Development – A Survey of Agile Methods course. designed to provide a working knowledge base and practical skills for anyone interested in understanding and participating in Scrum software development.

Customized Agile Software Courses: Our agile courses are modularized so that it can be easily customized for in-house course offerings that focus on the specific content and topics needed to meet your organization's exact training requirements. For in-house courses, class exercises can also be tailored to include actual examples from your organization in order to make the training even more relevant to your environment.

Detailed Outline:

I: Agile – The Basics

1. What is a Methodology
 - Method and Methodology Defined
 - What Should A Methodology Do? - Exercise
 - A Good Methodology
 - Line Down the Middle of the Road
 - Methodology Triangles
 - Traditional Software Development
 - Agile Software Development

For more information about these and other course offered by The Westfall Team:

Visit our website at: www.westfallteam.com

Send an email to: lwestfall@westfallteam.com

Or call: 972-867-1172



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2. Agile Manifesto & Principles
 - Manifesto for Agile Software Development
 - Individuals & Interactions
 - Working Software
 - Customer Collaboration
 - Responding to Change
 - Another Way to Think About This
 - Principles Behind the Agile Manifesto
 - Values & Principles - Exercise
 - Two Main Ideas Emerge
 3. Agile Mindset
 - Why Agility?
 - Rock Climbing
 - Emergence & Complex Behavior
 - Customer Focus
 - People & Teams
 - Planning
 - Change
 - But What About Quality?
 4. Agile May Not Be For You If...
 5. Agile Methods & Practices
 - Agile Methods
 - Agile Practices
- INVEST
 - User Story – Exercise
 - Sprint Planning Meeting
 - Sprint Goal
 - Prioritized Product Backlog
 - Selected Product Backlog
 - Sprint Backlog
 - Task Estimation – Planning Poker
 - Infrastructure/Architecture
 - Task Board & Task Selection
 - Scrum Skeleton
 - Scrum Heart
 - “Refinements, Not “Changes”
 - Daily Scrum Meetings
 - Daily Scrum Meetings - Examples
 - “Done” – Exercise
 - Velocity Metrics
 - Sprint Velocity – Exercise
 - Sprint Review Meeting
 - Sprint Review Meeting - Exercise
 - Potential Delivery
 - Scrum Release Planning
 - Sprint Retrospective Meeting
 - End of Scrum Project
 - Issues or Incomplete Backlog Items
 - Incomplete Items → Product Backlog
 - All change → Product Backlog
 - Backlog Refinement Meeting
 - Dealing with Legacy Code
 - Applying the Scrum Method

II: Scrum

1. Defining Scrum

- History of Scrum
- Scrum Characteristics
- Scrum Helps When
- Empirical & Defined Process
- Three Pillars of Scrum
- Five Values of Scrum

2. Scrum Roles

- Scrum Roles
- Product Owner
- Development Team
- Scrum Master
- Scrum Master “Challenges”

3. Scrum Process

- Scrum Process Overview
- Product Backlog
- Capturing Stakeholder Needs – User Stories

4. Nexus

II: eXtreme Programming (XP)

1. XP Values

- eXtreme Programming (XP)
- XP Values - Communication
- Zong Zhi - Exercise
- XP Values - Simplicity
- XP Values - Feedback
- XP Values - Courage
- XP Values - Respect

2. XP Principles

- XP Principles - Economics
- XP Principles - Mutual Benefit

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- XP Principles - Accepted Responsibility
 - XP Principles - Quality
 - XP Principles - Self Similarity
 - XP Principles - Flow
 - XP Principles - Redundancy
 - XP Principles - Failure
 - XP Principles - Opportunity
 - XP Principles - Reflection
 - XP Principles - Improvement
 - XP Principles - Baby Steps
 - XP Principles - Diversity
 - XP Principles - Humanity
3. XP Primary Practices
- XP Primary Practices - Team Co-Location
 - XP Primary Practices - The Whole Team
 - XP Primary Practices - Informative Workspace
 - XP Primary Practices - Energized Work
 - XP Primary Practices - Stories
 - XP Primary Practices - Quarterly Cycles
 - XP Primary Practices - Weekly Cycle
 - XP Primary Practices - Slack
 - XP Primary Practices - Incremental Design
 - XP Primary Practices - Test 1st Programming
 - XP Primary Practices - Pair Programming
 - XP Primary Practices - Continuous Integration
 - XP Primary Practices - Ten Minute Build
- b. XP Corollary Practices
- XP Corollary Practices - Team Continuity
 - XP Corollary Practices - Real Customer Involvement
 - XP Corollary Practices - Negotiated Scope Contract
 - XP Corollary Practices - Single Code Base
 - XP Corollary Practices - Shared Code
 - XP Corollary Practices - Code & Tests
 - XP Corollary Practices - Incremental Deployment
 - XP Corollary Practices - Daily Deployment

IV: Lean & Kanban

1. Lean Software Development
 - Lean Thinking
 - Knowledge-Based engineering
 - The Seven Principles
 - Eliminate Waste – Seeing Waste
 - Eliminate Waste – Value Stream Mapping
 - Value Stream Mapping - Exercise
 - Decide as Late as Possible
 - Deliver as Fast as Possible
 - Empower the Team
 - Build Integrity In
 - See the Whole
2. Kanban
 - Introducing Kanban
 - Benefits of Kanban
 - Kanban Core Practices
 - Kanban Board
 - Establishing WIP Limits
 - Pull-Based System to Manage Flow...
 - Kanban Metrics

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