

COURSE OVERVIEW

OVERVIEW

Agile has gone mainstream and the movement towards agile adoption shows no signs of slowing down. Organizations worldwide continue to advocate for the the adoption of agile techniques in order to deal with rapid organizational and technology changes. Although traditional project management methodologies have been the standard for many years, the continued pace of change means that project managers and organizations alike need to adopt new ways of developing and implementing projects.

Effectively implementing agile practices requires a paradigm shift including a new mindset and new techniques. This course covers all the major topics needed to understand and master agile project management. The course begins by providing key foundational knowledge and then gradually builds on this knowledge to delve into core agile techniques and practices.

It also covers all the topics needed to pass the PMI-ACP Certification with over 250 knowledge and practice questions.

WHAT YOU WILL LEARN

- Comprehensive understanding of best practices for working in agile teams and leading agile teams
- Understanding of how to develop an agile mindset and the benefits of a collective mindset as part of an embedded team
- In depth understanding of various agile frameworks and various techniques and practices of different frameworks
- Understanding of agile management vs. waterfall management
- Understanding of Minimum Viable Products and how to bring value to the customer through continuous improvement
- Understanding of how to utilize agile techniques to manage a project's scope, timeline and budget
- Understanding of the role of iterations and how to develop in iterations
- Understanding of velocity and how to utilize real metrics to ensure continuous development and delivery
- Knowledge of in depth strategies for responding to change and delivering success even on difficult projects
- Knowledge of key mistakes to avoid when transitioning to agile

COURSE OUTLINE

COURSE INTRODUCTION

MODULE 1 - WHAT IS AGILE PROJECT MANAGEMENT

- History of Agile
- Agile Project Management
- Iterations
- Agile Values
- Agile Principles

MODULE 2 - AGILE TEAMS

- 4 Stages of group development
- Knowledge sharing
- Two-way communication
- Participatory decision models
- Physical and virtual co-location
- Virtual co-location tools
- Distributed teams
- Global, cultural, and team diversity
- Osmotic communication

- Information radiator
- Task board
- Embedded teams
- Autonomous teams
- Self organizing & empowered teams
- Conflict resolution
- Negotiation

MODULE 3 - AGILE LEADERSHIP

- Servant Leadership
- Adaptive Leadership
- Agile Managers/Leaders Don't
- Agile Managers/Leaders Do
- Kaizen

MODULE 4 - WATERFALL METHODOLOGY & AGILE FRAMEWORK

- Waterfall Project Management
- Steps in Waterfall Project Management

- Waterfall Process Groups
- Agile Management vs. Waterfall Management
- Agile Continuous Planning
- Principles of Systems Thinking

MODULE 5 - USER STORIES

- User stories
- I.N.V.E.S.T.
- Personas
- Acceptance criteria
- Definition of ready
- Definition of done
- Story splitting
- Story points
- Story sizing
- Relative estimation
- T-Shirt sizing
- MoSCoW
- Spikes
- Slacks
- Story cycle time

MODULE 6 - SCRUM

- Product vision
- Minimal viable product (MVP)

- Product backlog
- Scrum roles
- Sprints
- Sprint backlog
- Sprint planning
- Daily stand-up
- Backlog refinement/grooming
- Iteration review
- Retrospective
- Velocity

MODULE 7 - KANBAN

- Kanban
- Kanban board
- Kanban – short history
- Core principles of Kanban
- Kanban values
- Kanban practices
- Work In Progress (WIP) limits
- Classes of service
- Scrum vs. Kanban

MODULE 8 - AGILE FRAMEWORKS

- Pair Programming
- Pair Programming Benefits
- Extreme Programming

- Extreme Programming Values
- Dynamic Systems Development Method (DSDM)
- Feature Driven Development
- Adaptive Software Development (ASD)
- Lean
- The 3 Ms of Lean
- Crystal
- Test Driven Development

MODULE 9 - RISK MANAGEMENT

- Risk management
- Traditional risk management process
- How agile addresses core risks
- Managing risk via product backlog
- Risk-adjusted backlog
- Risk register
- Risk burn-down chart
- Risk-based spikes
- Architecture
- Architecture spike
- Pre-mortem
- Earned value management (EVM) for agile projects
- Variance and trend analysis
- Control charts

- Control limits

MODULE 10 - AGILE PLANNING

- Agile planning
- Emergent design
- Traditional planning
- Six levels of agile planning
- Product roadmap
- Story mapping
- Brainstorming
- Agile charter
- Project charter
- Wireframes
- Burndown chart
- Burnup chart
- Cumulative flow diagrams
- Planning horizon
- Rolling-wave planning
- Progressive elaboration
- Just barely good enough
- Last responsible moment
- Kaizen
- Kaizen cycle

MODULE 11 - AGILE ESTIMATION

- Top down estimation

- Bottom up estimation
- Ideal time
- Agile estimation
- Empirical process control
- Cone of uncertainty and variance
- Story points – a review
- Affinity estimation
- Planning poker
- Wideband delphi technique
- Delphi technique
- Value stream mapping
- Voice of the customer
- Kano model
- Five categories of the kano model
- Kano graph

MODULE 12 - TESTING IN AGILE

- Traditional testing
- Challenges with traditional testing
- Agile testing
- Agile vs. traditional testing
- Test driven development
- Acceptance test driven development
- Exploratory testing
- Scripted testing
- Exploratory vs. scripted testing

- Defect
- Defect rate
- Feedback methods
- The five whys
- Fish bone diagram
- Acceptance testing

MODULE 13 - OTHER EXAM TOPICS

- Traditional contracts
- Agile contracts
- Traditional budgeting
- Agile budgeting
- Managing with agile KPIs
- Process tailoring and hybrid strategies
- Present value
- Future value
- Net present value
- Internal rate of return
- Payback period
- Return on investment
- Intrinsic value
- Law of diminishing returns