

# ACP - Agile Certified Practitioner

## **Overview**

This PMI-ACP (Agile Certified Practitioner) training will empower you to become a skilled agile professional with knowledge of a broad range of agile methodologies, including Scrum, Kanban, Lean, extreme programming, and test-driven development. This course is aligned to recent updates to the PMI-ACP exam, using the Agile Practice Guide as a new reference material. This course covers agile methodologies, tools, and techniques and the concepts of the Agile Practice Guide, while providing real-life scenarios throughout.

## **Course Content of ACB**

### **Lesson 01 - Course Introduction**

- Course Introduction
- Eligibility Requirements
- Certification Fees and Renewal About Our Course

### **Lesson 02 - Agile Principles and Mind-set - Part 1**

- Agile Principles and Mind-set - Part One
- Introduction to Agile
- Agile Engineering Practices
- The Agile Manifesto
- Agile Manifesto
- Explained Principles of Agile Manifesto
- Applying the Principles of Agile Manifesto
- Agile Core Principles and Practices
- Benefits of Agile
- Project Life Cycle Characteristics
- Key Takeaways
- Knowledge Check

## **Lesson 02 - Agile Principles and Mind-set - Part 1**

- Agile Principles and Mind-set - Part One
- Introduction to Agile
- Agile Engineering Practices
- The Agile Manifesto
- Agile Manifesto Explained
- Principles of Agile Manifesto
- Applying the Principles of Agile Manifesto
- Agile Core Principles and Practices
- Benefits of Agile
- Project Life Cycle Characteristics
- Key Takeaways
- Knowledge Check

## **Lesson 03 - Agile Principles and Mind-set - Part 2**

- Agile Principles and Mind-set - Part Two
- Agile Methodologies
- Agile Mind-set
- Where to Apply Agile
- Meaning of Scrum
- Features of Scrum
- Three Pillars of Scrum
- Scrum Roles
- Key Terms of Scrum
- Scrum Meetings
- Scrum: An Empirical Process
- Extreme Programming
- Extreme Programming Practices - Part A
- Extreme Programming Practices - Part B
- Roles in Extreme Programming
- Process Diagram of XP
- Crystal Method
- Properties of Crystal Method
- Key Categories of Crystal Method - Part A
- Key Categories of Crystal Method - Part B
- Dynamic Systems Development Method (DSDM)
- Basic Principles of Astern
- Planning Philosophy in DSDM
- DSDM Techniques
- DSDM Phases
- Feature-Driven Development

- Agile Project Management
- Key Takeaways
- Knowledge Check

## **Lesson 04 - Value-Driven Delivery - Part 1**

- Value-Driven Delivery - Part One
- Quantifying Customer Value
- Time Value of Money
- Time Value of Money: Example
- The Financial Feasibility of Projects
- Return on Investment ROI
- Net Present Value (NPV)
- Net Present Value (NPV): Example
- Internal Rate of Return (IRR)
- Payback Period
- Payback Period: Example
- Prioritization of Functional Requirements
- MoSCoW
- Kano Model
- Relative Weighting
- Prioritization of Non-Functional Requirements
- Risk Management in Agile
- Key Takeaways
- Knowledge Check

## **Lesson 05 - Value-Driven Delivery - Part 2**

- Value-Driven Delivery - Part Two
- Minimal Viable Product
- Project Planning Using MVP
- Agile Compliance
- Key Drivers of Agile Compliance
- Incremental Delivery
- Review and Feedback
- Earned Value Management
- Earned Value Metrics
- Earned Value Metrics: Example
- Agile Contracts: Components
- Agile Contracting Methods
- Fixed-Price or Fixed-Scope Contract
- Time and Materials (T and M) Contract
- T and M with Fixed Scope and Cost Ceiling
- T and M with Variable Scope and Cost Ceiling
- Bonus or Penalty Clauses
- Rolling Agile Contracts
- Terms Used in Agile Contracts
- Key Takeaways
- Knowledge Check

## **Lesson 06 - Stakeholder Engagement - Part 1**

- Stakeholder Engagement - Part One
- Stakeholder Engagement
- Project Charter
- Understanding Stakeholder Needs
- Agile Wireframes
- User Story
- Story Card Information
- Agile Personas
- Theme and Epic
- Agile Story Maps
- Community and Stakeholder Values
- Key Takeaways
- Knowledge Check

## **Lesson 07 - Stakeholder Engagement - Part 2**

- Stakeholder Engagement - Part Two
- Community Management
- Communication and Knowledge Sharing
- Social Media Communication
- Information Radiators
- Burnup and Burn down Charts
- Kanban or Task Board
- Impediment Logs
- Characteristics of Information Radiators
- Agile Modelling
- Active Listening
- Key Elements of Active Listening
- Globalization Diversity and Cultural Sensitivity
- Cultural Diversity Issues: Recommendations
- Agile Facilitation Methods
- Agile Negotiation and Conflict Management
- Five Levels of Conflict
- Key Takeaways
- Knowledge Check

## **Lesson 08 - Team Performance - Part 1**

- Team Performance - Part One
- Features and Composition of Agile Teams
- Stages of Agile Team Formation
- High Performance Teams
- Generalizing Specialist
- Team Responsibility
- Self-Organization
- Key Takeaways
- Knowledge Check

## **Lesson 09 - Team Performance - Part 2**

- Maslow's Theory
- Frederick Herzberg's Theory
- McClelland's Theory
- Boehm's Theory
- Team Space
- Co-Located Teams
- Distributed Teams
- Co-Located vs. Distributed Teams
- Osmotic Communication
- Team Collaboration and Coordination
- Collaboration Technology
- Communication Gap-Example One
- Communication Gap-Example Two
- Brainstorming Sessions
- Team Velocity
- Velocity-Example One
- Velocity-Example Two
- Sample Velocity Chart
- Velocity-Example Two
- Agile Tools
- Knowledge Check

## **Lesson 10 - Adaptive Planning - Part 1**

- Adaptive Planning - Part One
- Planning Philosophy
- Aligning Agile Projects
- Rolling Wave Planning
- Time boxing
- Best Practices of Time boxing
- Advantages of Time boxing
- Agile Estimation
- Story Points
- Assigning Story Points
- Story Points Estimation
- Story Points Estimation Scale: Example
- Value Points
- Ideal Days
- Story Points vs. Ideal Days

- Wideband Delphi Technique
- Planning Poker
- Planning Poker: Example
- Affinity Estimation
- Key Takeaways
- Knowledge Check

## **Lesson 11 - Adaptive Planning - Part 2**

- Adaptive Planning - Part Two
- Project Size Estimation
- Release Plan
- Release Plan: Example
- Iteration Plan
- Types of Iteration Planning
- Iteration Lifecycle: Example
- Release Plan vs. Iteration Plan
- Agile Product Roadmap
- Backlog Refinement - Part Two
- Value-Based Analysis and Decomposition
- Agile Cone of Uncertainty
- Velocity Variations
- Sprint Reviews
- Sprint Retrospectives
- Mid-Course Corrections
- Key Takeaways
- Knowledge Check

## **Lesson 12 - Problem Detection and Resolution - Part 1**

- Problem Detection and Resolution - Part One
- Agile Problem Detection
- Problem Detection Techniques
- Fishbone Diagram
- Five Whys Technique
- Control Charts
- Lead Time and Cycle Time
- Kanban
- Kanban Process
- Example of Kanban Board
- Work in Progress
- Managing Constraints
- Little's Law
- Escaped Defects



- Agile Problem Solving
- Key Takeaways
- Knowledge Check

## **Lesson 13 - Problem Detection and Resolution - Part 2**

- Adaptive Planning
- Metrics and Measures
- Benefits of Metrics
- Examples of Metrics
- Baseline Metrics
- Variance and Trend Analysis
- Risk Management Life Cycle
- Step One-Risk Identification
- Step Two-Risk Assessment
- Step Three-Risk Response Strategies
- Step Four-Risk Review
- Risk Log
- Risk Burn down Chart
- Risk Profile Graph
- Spike
- Agile Failure Modes
- Agile Coach Failure Modes
- Troubleshooting Guidelines
- Key Takeaways
- Knowledge Check

## **Lesson 14 - Continuous Improvement - Part 1**

- Continuous Improvement - Part One
- Kaizen
- Kaizen in Agile
- Lean
- Defining Waste Manufacturing and Software Development
- A Five Step Process to Becoming Lean
- Value Stream Mapping
- Agile Retrospectives
- Cargo Smells
- Conducting a Retrospective
- Brainstorming Techniques
- Process Analysis Techniques
- Agile Process Tailoring
- Project Factors That Influence Tailoring
- Key Takeaways

- Knowledge Check

## **Lesson 15 - Continuous Improvement - Part 2**

- Continuous Improvement - Part Two
- Quality in Agile
- Best Practices for Quality in Agile
- Best Practice One: Verification and Validation
- Best Practice Two: Exploratory Testing
- Best Practice Three: Usability Testing
- Best Practice Four: Test-Driven Development
- Test-Driven Development Advantages
- Acceptance Test-Driven Development Cycle (ATDD)
- Best Practice Five: Continuous Integration
- Best Practice Six: Definition of Done
- Testing Pyramid and Quadrant
- Checklist for Story Completion
- Agile Flowchart
- Agile Spaghetti Diagram
- Organizational Self-Assessment
- Key Takeaways
- Knowledge Check

## **Learning Objectives**

- Understand the history of agile, including founding, evolution, core concepts and principles
- Develop a working knowledge of the agile principles of Scrum, Kanban, XP and TDD
- Develop the expertise of implementing multi-iterative development models for any scale of projects
- Develop the ability to deliver high velocity stories and epics
- Develop the knowledge and skills required to clear the PMI-ACP certification exam along with
- the requisite 21 PDUs