# Agile Certified Practitioner (ACP) Exam Prep

### **Course Overview**

This course will help prepare students for the Agile Certified Practitioner exam, first by explaining the application process and test, then by looking at specific areas of Agile such as the principles and mindset, dynamic systems development, value-driven delivery, stakeholder engagement, boosting team performance, adaptive planning, problem detection and resolution, and continuous improvement.

**Course Introduction** 2m

Course Introduction

Chapter 01 - The Process 18m

The Process

**Application Process** 

**ACP Qualifications** 

Scheduling Your Exam

Rescheduling/Cancelling

Fees

Chapter 02 - The Exam 23m

The Exam

Exam Results

The Exam (cont.)

Exam Breakdown

Tools and Techniques 50% of Exam

Knowledge & Skills 50% of Exam

Level 1 (33% of Total Examination Questions)

Level 2 (12% of Total Examination Questions)

Level 3 (5% of Total Examination Questions)

**Key Readings** 

Domain Breakdown

### Chapter 03 - Agile Principles & Mindset

Agile Principles & Mindset

Domain Tasks

PMBOK Guide vs. Agile

Agile is Iterative & Incremental

The Effects of WIP & "Best Resourcing"

The Beginning of Agile

Agile Development Values...

The 12 Principles of Agile Software

The Heartbeat of Agility

Must, Wants & Needs

2h 4m

Agile Methodologies

Scrum Basics

Foundation

The Scrum Roles

Team Members

A Project Vision

Product Backlog

Scrum Basics (cont.)

The Daily Sprint Schedule

The Basic Team Board or Scrum Board

Adding Kanban to Scrum

**Extreme Programming** 

Extreme Programming - Basics

Core Values

Principles & Practices

Core Practices - Fine Scale Feedback

Fine Scale Feedback - Release Planning

Fine Scale Feedback - Iteration Planning

Core Practices - Fine Scale Feedback (cont.)

XP Core Practices - Continuous Process

Core Practices - Shared Understanding

Core Practices - Programmer Welfare

The Extreme Programming Workflow

XP vs. Scrum

Feature-Driven Development (FDD)

Develop Overall Model

Build Feature List

Plan & Design by Feature

Build by Feature

**FDD** 

Scrum vs. FDD

### Chapter 04 - Dynamic Systems Development (DSDM)

Dynamic Systems Development (DSDM)

Dynamic Systems Development Method

Prerequisites for Using DSDM

The Atern Team Model

**DSDM** Eight Principles

- 1. Focus on the Business Need
- 2. Deliver on Time
- 3. Collaborate
- 4. Never Compromise Quality
- 5. Build Incrementally from Firm Foundations
- 6. Develop Iteratively
- 7. Communicate Continuously & Clearly
- 8. Demonstrate Control

Crystal Overview

Cockburn Differentiated Between...

Crystal Methods Focus on...

Crystal

54m

Common Crystal 7 Properties

Frequent Delivery

Reflective Improvement

Close or Osmotic Communication

Personal Safety & Focus

Easy Access to Expert Users

**Automated Tests** 

Lean Software Development (LSD)

Key Tools & Concepts

Seven Wastes (TIMWOOD)

Kanban

Task/Kanban Board

Five Core Principles of Kanban

Scrum vs. Kanban

Test Your Assumption

SAFe 3.0 - Level I

SAFe 3.0 - Level II

SAFe 3.0 - Level III

SAFe Core Values

### Chapter 05 - Value-Driven Delivery

Value-Driven Delivery

Domain Tasks

Value-Driven Delivery (cont.)

Assessing Value

Planning Value

Value Stream Mapping

Total Cycle Time

Poppendieck

Customer-Valued Prioritization

Monopoly Money

Kano Analysis

Requirements Prioritization Model

A Sample Story Map

Risk

Major Risk Classes

Agile Helps Mitigate Risks

Successful Agile Projects

Expected Monetary Value (EMV)

Decision Tree Analysis

Use EMV

Agile Contracting

**DSDM** Contracting

**Graduated Fixed Price Contracts** 

Fixed Price Work Packages

Why not Gantt Charts & Other Software?

Little's Law

Demonstrations

Cumulative Cost Curve

Earned Value

1h 32m

Forecasting – ETC Forecasting - EAC Forecasting - TCPI

Burndown Chart

# <u>Chapter 06 - Stakeholder Engagement</u>

Stakeholder Engagement

Domain Tasks

Who is a Stakeholder?

**Key Aspects** 

Wireframes

Personas

Persona Example: Frances Miller

**User Stories** 

**User Story Strengths** 

User Stories The 3 Cs

You Must INVEST in Your Stories

Given, When, Then

Definition of Done (DoD)

F2F is Best

**Information Radiators** 

Information Radiators Examples

Agile Modeling

The Diagram & The Write Up

Active Listening

Facilitation Methods

Conflict Resolution

Speed B. Leas Conflict Model

Participatory Decision Models

Management vs. Leadership

Servant Leadership

12 Principles for Leading Agile Projects

### **Chapter 07 - Boosting Team Performance**

**Boosting Team Performance** 

Domain Tasks

COCOMO

Weighting Factors for COCOMO Input Variables

Adaptive Leadership

Leadership Styles

Theories of Management Style

**Emotional Intelligence** 

Ability-Based EI Model

Goleman's Mixed EI Model

**Empowered Teams** 

High-Performance Teams

The Five Dysfunctions of a Team

The Daily Scrum

One-on-One Coaching & Mentoring

**Brainstorming Techniques** 

58m

30m

Other Tools

### Chapter 08 - Adaptive Planning

Adaptive Planning

Domain Tasks

The Basic Agile Project Planning Process

Adaptive Planning (cont.)

Timeboxing

Progressive Elaboration

Rolling Wave Planning

**Process Tailoring** 

The Agile Pyramid

The Agile Test Pyramid

Value-Based Analysis

Value-Based Decomposition & Prioritization

Agile Games

Wideband Delphi & Planning Poker

Estimation

Time & Cost Estimation

What Causes Project Delays?

Planning Differences

What is SAFe

SAFe Core Values

Release Planning Meeting

Scrum of Scrums

System Demo

Iterations

### Chapter 09 - Problem Detection & Resolution

Problem Detection & Resolution

Domain Tasks

Cycle Time

Cost vs. Value of Change

**Escaped Defects** 

Quality Standards

Failure Modes & Alternatives

In Control

Continuous Integration

Risk-Based Spike

Test Driven Development (TDD)

Traditional Coding Model

The TDD Model

TDD Chart

TDD

Advantages & Disadvantages

Acceptance Test-Driven Development

Four Stages

TDD vs. Test 1st

Refactoring

42m

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Types of Refactoring
Planned Refactoring
Long Term Refactoring
M. Fowler's Design Stamina Hypothesis
Why Refactor?
Problem Solving
Problem Solving – Gather Data
Problem Solving – Generate Insights
5 Whys
Problem Solving - Decide What to Do

## Chapter 10 - Continuous Improvement

23m

Continuous Improvement Domain Tasks Retrospectives Are Key Retrospectives Steps Pre-Mortem Pre-Mortem Process Complexity Assessment

Total Duration: 8h 28m