

## **Course Syllabus**

### **Agile for Practitioners**

#### **I. DESCRIPTION**

Agile skills are in high demand in all industries, and experienced project professionals need to pick up agile skills to stay relevant. This course is an in-depth, workshop-style course that will teach participants the principles and values of Agile, the most popular agile frameworks like Scrum, Kanban, Lean Software Development and Extreme Programming (XP), and help them apply Agile practices and techniques to their current projects. This is a highly interactive course that leverages real world examples from Scrum, Lean, Kanban and other Agile methods. Participants will work in teams to experience and apply Agile to the course exercises.

This course qualifies as education contact hours for the Project Management Institute's Agile Certified Practitioner (PMI-ACP®) exam. Note that in order to sit for the PMI-ACP® exam, students must meet additional requirements set forth by PMI that can be found on their website.

#### **II. COURSE OBJECTIVES**

The purpose of this course is to prepare participants to be able to:

- Explain various Agile frameworks and why they are used—including Scrum, XP, Lean, and Kanban
- Apply Scrum to your projects
- Create a product backlog and user stories
- Explain what leadership looks like in an Agile environment
- Gain insight on how to create transparency using Agile communications tools
- Comprehend various Agile concepts including Value-Driven Delivery, Stakeholder Engagement, Team Performance, Adaptive Planning and Continuous Improvement
- Become a better Agile project practitioner
- Understand how to establish an Agile team and help encourage high-performance
- Learn to effectively manage project scope, schedule, budget and quality through the use of Agile controls
- Learn how to apply servant leadership
- Gain insights, techniques and skills to successfully coach and mentor agile teams
- Understand the knowledge and experience requirements necessary to apply for and pass the PMI-ACP® certification exam

#### **III. COURSE OUTLINE**

##### **Unit 1: Introduction**

- Agile definitions and historical context
- Agile Values and Principles found in the Agile Manifesto
- Misconceptions about Agile

#### **Unit 2: Overview of Agile Methods**

- Common Agile methods including Scrum, Lean, XP, Crystal and Kanban
- Specific Agile techniques, Cumulative Flow Diagrams and Value Stream Mapping

#### **Unit 3: Value Driven Development**

- How Agile focuses on business value
- Key benefits of Agile
- Agile Team Exercise

#### **Unit 4: Planning Agile Projects**

##### 4.1 Planning for Agile Teams

- Scrum Teams
- XP Teams
- General Agile Teams
- Collaboration Rooms
- Team Distribution

##### 4.2 Agile Project Lifecycles

- Typical Agile Project Lifecycles
- Activities within each Phase
- Create product vision
- Producing a Minimum Marketable Feature

##### 4.3 Release Planning

- Creating the Product Backlog
- User Stories
- Prioritizing and Estimating
- Creating the Release Plan

##### 4.4 Monitoring and Adapting

- Task Boards and Information Radiators
- Control Limits, Variance and Trend Analysis
- Managing Risks and Issues
- Retrospectives

#### **Unit 5: Scrum**

##### 5.1 Introduction to Scrum

- Scrum as a force for Organizational Change
- Scrum Artifacts, Meetings, and Roles
- Scrum Master vs. Project Manager

- Definition of Done
  - Why all the meetings?
- 5.2 Scrum Team Simulation
- Scrum is a Team Sport
- 5.3 Additional Scrum Topics
- Simple but difficult
  - Common misunderstandings

#### **Unit 6: Leading Agile Teams**

- Skills needed by Agile Leaders
- Emotional Intelligence
- Listening Skills
- Command and Control vs. Servant Leadership
- Adaptive Leadership
- Collaboration, Facilitation, Problem Solving and Participatory Decision-Making Skills
- Coaching and Mentoring Teams
- Conflict Resolution

#### **Unit 7: Leading Beyond the Team**

- Managing Stakeholder Values
- Communications Management
- Agile Contracting & Vendor Management

#### **Unit 8: Other PMI-ACP Topics**

- Agile Modeling
- Product Quality

#### **Unit 9: PMI-ACP Certification**

- Scrum Alliance Certification
- Scrum.org
- PMI-ACP – Detailed Requirements

#### **Unit 10. Practice PMI-ACP Exam**

### **IV. EXERCISES**

- Exercise 1: Course Goals
- Exercise 2: Agile Values
- Exercise 3: Agile Principles
- Exercise 4: XP Practices
- Exercise 5: Lean Wastes

- Exercise 6: Value Stream Mapping
- Exercise 7: Kanban Exercise
- Exercise 8: Agile Workshop – Airplane Production
- Exercise 9: Multi-tasking
- Exercise 10: Planning for Agile Teams
- Exercise 11: Estimating with Planning Poker
- Exercise 12: Release Planning
- Exercise 13: Scrum Master Role
- Exercise 14: Scrum Simulation Exercise
- Exercise 15: Systems Thinking Exercise
- Exercise 16: Command and Control Litmus Test
- Exercise 17: Leadership Scenarios Exercise
- Exercise 18: Financial Exercise
- Exercise 19: Sample PMI-ACP Exam Questions

## V. GRADING POLICY

Participation is the key to learning in this class. To facilitate your learning, there will be numerous team and class discussion topics, and one or more exercises. You will be graded on your participation in the team and class discussions, Q&A throughout the day, and exercises. It is important that you show up to every class in order to get the most out of your learning experience.

Grading for this class is based on in-class participation and engagement with your group. You will receive 1 point for every day that you come to class (Up to 4 total). You will receive an additional point for showing leadership in terms of participating in activities, discussion and Q&A. To pass the course, you need to come to every class and earn 1 leadership point (5 or more). If you need a letter grade for reimbursement, speak to the instructor at the start of the first class. To earn an “A” you will need 8 points. To earn a “B” you will need 6 points; a C will be 5 points and anything less is an F.

## VI. BIBLIOGRAPHY

### 12 Source Books for the PMI-ACP:

- Adkins, Lyssa. Coaching Agile Teams: A Companion for ScrumMasters, Agile Coaches, and Project Managers in Transition. Addison-Wesley. 2010.
- Cockburn, Alistair. Agile Software Development: The Cooperative Game, Second Edition
- Cohn, Mike. Agile Estimating and Planning. Pearson Education. 2006
- Cohn, Mike. User Stories Applied: For Agile Software Development.
- Derby, Esther. Agile Retrospectives: Making Good Teams Great. Pragmatic Bookshelf. 2006.
- Highsmith, Jim. Agile Project Management: Creating Innovative Products. Addison-Wesley. 2010.
- Sliger, Michele and Broderick, Stacia. The Software Project Managers Bridge to Agility. Addison-Wesley. 2008.

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- Wsocki, Robert K. Effective Project Management: Traditional, Agile, Extreme. Wiley. 2013
- Rawsthorne Dan with Doug Shimp Exploring Scrum: The Fundamentals. CreateSpace Independent Publishing Platform. 2013.
- Hammarberg, Marcus and Joakim Sunden. Kanban In Action. Manning Publications. 2014
- Anderson, David J. Kanban: Successful Evolutionary Change for your Technology Business. Blue Hole Press. 2014

#### Other Helpful Books and Articles:

- Beck, Kent. Extreme Programming Explained. Addison-Wesley. 2004.
- Mersino, Anthony. Emotional Intelligence for Project Managers: The People Skills You Need to Succeed. AMACOM. 2013.
- Mersino, Anthony. Agile Project Management: A Nuts and Bolts Guide to Success. Vitality Chicago. 2015.
- Poppendieck, Mary and Poppendieck, Tom. Lean Software Development: An Agile Toolkit. Addison-Wesley. 2003.
- Project Management Institute. The PMI-ACP Examination Content Outline. May 7, 2013. Retrieve from: [http://www.pmi.org/en/Certification/~media/Files/PDF/Agile/PMI\\_Agile\\_Certification\\_Content\\_Outline.ashx](http://www.pmi.org/en/Certification/~media/Files/PDF/Agile/PMI_Agile_Certification_Content_Outline.ashx)
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- Sutherland, Jeff and Schwaber, Ken. The Scrum Guide. 2011. (<http://www.scrum.org/Scrum-Guides>)
- Takeuchi, Hirotaka and Nonaka, Ikujiro. The New New Product Development Game. May 7, 2013. <<http://www.sao.corvallis.or.us/drupal/files/The%20New%20New%20Product%20Development%20Game.pdf>>
- VersionOne. The 10<sup>th</sup> Annual Survey of Agile Development. May 7, 2013. Retrieve from: <https://versionone.com/pdf/VersionOne-10th-Annual-State-of-Agile-Report.pdf>
- Womack, James P. The Machine That Changed the World: The Story of Lean Production. Free Press. 1990