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Course Outline

Agile Boot Camp for Non-Software Work: ICP Fundamentals Certification
Course AGILEBCHW: 3 days Instructor Led

About this course

Agile methodologies have become a mainstream component in the world of software development. Not surprisingly, Agile methods can be applied to many other types of business work. In our Agile Boot Camp for Non-Software Work, we apply agile techniques to addressing business processes, infrastructure, operations, and other types of work.

While not a silver bullet, Agile Methodologies have become the most practical way to create outstanding results. We will look at leading Agile methodologies for both discovery and operational work. You will learn the basic concepts behind Agility and how Agile can help you in your daily efforts.

ICAgile Certified Professional (ICP)

Attendees who successfully complete this course will receive the ICP designation after course completion, based on their exposure to the Agile Fundamentals learning objectives, which is covered in this course.

Audience profile

This course is designed for anyone who wants to apply agile techniques to their own work, even if it's not software related.

Because this is an immersion course and the intent is to engage in the practices every Agile team will employ, this course is recommended for all team members.

That includes, but is not limited to:

- Anyone wanting to apply Agile to their work, even if not software related
- Business people wanting to apply Agile to their business projects and processes
- Infrastructure, Operations, Sustainability, Support Services staff
- Teams and individuals doing non-IT work, projects or continuous flow work
- Teams and individuals who support or work with other Agile teams
- Specialty Teams, Transactional Teams
- Even software developers will benefit!

At course completion

After completing this course, students will be able to:

- Gain knowledge of Agile principles, concepts, and mindset and understand why they are so important for each team
- Apply these concepts to work other than software development
- Follow the team approach; start as a team, finish as a team — and focus on delivering value to the organization
- Understand the power of the teams and typical agile team roles
- Learn Agile approaches for sustainability, infrastructure, operations, and non-IT work
- Understand when to use methods like Scrum or Kanban
- Learn methods that support incremental and emergent projects but also continuous flow work

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- Embrace Agile planning techniques and recognize the value of continuous planning
- Map and visualize workflow to eliminate bottlenecks and streamline capacity
- Achieving a continuous improvement culture and Practice and maintain a regular cadence for delivering work

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Part 1: Why Agile? The Case for Change

Businesses have historically been plagued by many problems, including inadequate requirements, which lead to products that customers aren't happy with and sometimes can't use. We start the class by making the case for a shift to an Agile approach to solve the problems and to gain an overall understanding of the basic principles, and benefits of Agile approaches.

Team Exercise: As a class we will discuss the various problems that the class has experienced in their own projects so that we can then understand how Agile will help them address these problems. The class will understand from this exercise that they are not alone with a set of problems that others also experience.

Part 2: Becoming Agile

We will understand the Agile Manifesto and Principles. We first visit Lean which is foundational and influences all other Agile methodologies. Then we will have an overview of Scrum. Scrum is the most popular Agile methodology and is great for projects. Scrum or Scrum variants are being used by about 75% of those using Agile, but Scrum is not the only Agile approach. We'll then see how Kanban might be a better answer for other types work (e.g. operations and sustainment).

Review Agile methodologies practiced in organizations today (e.g. Scrum, Kanban).

- Agile Mental Models
- Agile Manifesto
- Agile Principles
- Agile Practices

Team Exercise: Teams will engage in a fun exercise that will reinforce the importance of, and power behind, self-organizing teams. As with sports teams, individual roles are important, but even more important is the need to work toward a common goal together. At times that means blurring the lines of traditional roles. Great teams will not define themselves by their individual roles.

Part 3: Building an Agile Team

Agile focuses on creating a team that can deliver results over and over. In this section we will discuss what makes a high-performing team and how to build that team. The section will also cover the team roles associated with an Agile approach.

Team Exercise: We will discuss as a class what makes a great team based on teams we've participated on that were great.

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Part 4: Delivery with Scrum

In this section, we will review the Scrum framework and the various Scrum techniques. Scrum provides a great framework for building new products, especially when all the requirements are not known. Scrum techniques can also be used with other Agile methods like Kanban.

Agile Project Planning

- Vision
- Roadmap
- User Roles and Personas

Team Exercise: Teams will practice turning User Roles into full fleshed personas.

Part 5: Backlog Planning

- Writing User Stories
- Prioritization
- Estimating

Team Exercise: Each team will conduct a brainstorming session for creating a product backlog in the form of user stories. Each team will present some of their user stories and the instructor will lead discussion about where teams hit the mark and areas for improvement (Instructor will not have all of the ideas, this is a great opportunity for team dynamic).

Part 6: Iteration Execution

- The Daily Scrum
- Story Review
- Visual Management
- Agile Metrics

Part 7: Inspect and Adapt

The power of Agile comes from the fact that continuous improvement is built into the Agile system. In this section we will review how People, Product and Process improve themselves through a frequent inspect and adapt process. We will discuss the main Agile ceremonies that help us accomplish this: Iteration Review/Demo and the Retrospective.

- The Iteration Review
- The Demo
- The Retrospective

Team Exercise: Teams will discuss what things they can do the day after class ends to take what they've learned and implement it immediately so that they don't lose what they've learned.

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Part 8: Kanban Overview and Concepts

Not all work fits well into a Scrum framework. Kanban is an Agile method that helps us to improve a delivery process with a focus on continuous improvement. We will cover the foundation of Kanban concepts, properties, and terminology. We will also understand the philosophy behind the Kanban framework and how it originated.

Topics covered:

- Kanban's 5 Core Properties
- Kanban Emergent Behaviors
- Kanban concepts, principles, and terminology

Part 9: Implementing Kanban

The best way to understand Kanban is to go through the process of implementing it. This section goes through the various techniques and ceremonies associated with Kanban.

Topics covered:

- Visualization of Work
- Work Item Types, Card Walls
- Workflow, Queues and Buffers
- Cadences, Work-in-Progress
- Bottlenecks, Issues and Blocked Items

Team Exercise: Kanban boards are an invaluable communication tool. Each team is tasked with coming up with their board that clearly communicates their commitments and progress against those commitments.

Part 10: Kanban Metrics and Reporting

Kanban uses metrics a little differently than other Agile methods. In this section we will understand how metrics and reporting are leveraged with Kanban.

Topics covered:

- Tracking Work-in-Process, Cumulative Flow Diagrams
- Lead Time, Trends, Throughput

Part 11: Scaling Kanban

Applying Kanban techniques to other types of efforts. How to track requirements, decouple work, and leverage the Minimal Marketable Release.

Topics covered:

- Scaling Kanban for different size efforts
- Minimal Marketable Release
- Two-Tiered Card Walls

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Part 12: Kanban Improvements

Learn how to recognize opportunities for improvement in your Kanban system and what to do about them.

Topics covered:

- Three types of Improvement Opportunities
- Estimations, Class of Service
- Service Level Agreements, Policies

Team Exercise: Teams will build a cadence calendar to use with their teams to organize work, share learnings, and build a focus on continuous improvement.

Part 13: Agile Adoption

Agile Adoption can be accomplished with different approaches and at different speeds. In this section, we will review the best practices of Organizational Change Management as it applies to Agile adoption and considers the primary reasons for adoption failure.

Topics covered:

- Kaizen Culture and Mindset
- Agile Leadership
- Kotter's Model
- Continuous improvement culture

Team Exercise: We will wrap the course up and end with a discussion on “Where do you go from here?”.