Agile at Scale (AES)

Course Title:
Agile at Scale (AES)

Course Description:
Instructor-led course covering the learning objectives required to achieve an elective level of Agile knowledge.

Course Abstract:
In this instructor-led course – which utilizes a "learn by doing" format that combines self-study, mentorship, training, and coaching – students will learn, practice, and develop the skills necessary to achieve an elective level of Agile knowledge.

Duration:
8 Modules

Prerequisite:
Agile Foundations (AF)

Level:
Elective

Assessment:
Knowledge

Recommended Text:
Scaling Lean & Agile Development: Thinking and Organizational Tools for Large-Scale Scrum

Course Structure:

- Module 1: Introduction
    - Learning Objectives:
        - Introduction of course instructor
        - Introduction of agenda and course format
        - Introduction of classmates and experience levels
        - Introduction of test-first approaches
    - Handouts: None
    - Videos: None
    - Activities: Introduce Yourself, Rate Your Experience Level
    - Assignment: Read Scaling Lean & Agile Development - Chapter 1
    - Action: Consider how to apply Lean Thinking concepts to the work your team is doing
- Module 2: Scrum Review
    - Learning Objectives:
        - Ensure you're following Scrum before you attempt to scale it, otherwise you'll just be scaling your problems
    - Handouts: None
    - Videos: None
    - Activities: Jeopardy-Style Scrum Review
    - Assignment: Read Scaling Lean & Agile Development - Chapter 2 (Systems Thinking)
    - Action: Consider why empirical process control matters, and how that applies to complex systems
- Module 3: Systems Thinking
    - Learning Objectives:
        - How to define a system optimizing goal
        - The potential impact of local optimization
        - Why we should focus on idle work rather than idle workers
        - The impact of queues on cycle time
        - The goal based on the theory of constraints
        - How to see the system
        - Key concepts in systems thinking
        - How to imagine a better system through idealized design
    - Handouts: The Goal
    - Videos: Dipstick Studio - Systems Thinking in Healthcare
    - Activities: None
    - Assignment: Read Scaling Lean & Agile Development - Chapter 3 (Lean Thinking)
    - Action: Consider how to apply Lean Thinking concepts to the work your team is doing
- Module 4: Systems Modeling - Puzzle 1
    - Learning Objectives:
        - Leadership needs to agree on the system optimizing goal
    - Handouts: None
    - Videos: Ionica Smeets - Causality and Correlation, Tom Wujec - Wicked Problem Solving
    - Activities: Causal Loops Diagrams - Clean Code Exercise
    - Assignment: Read Scaling Lean & Agile Development - Chapter 4 (Queueing Theory)
    - Action: Facilitate creating a value stream map with your Scrum Team, and identify ways to eliminate hidden queues
- Module 5: Systems Modeling - Puzzle 2
    - Learning Objectives:

- Organizational design elements should be consistent with the system optimizing goal
  - Handouts: None
  - Videos: None
  - Activities: Causal Loops Diagrams - SOG Exercise
  - Assignment: Read Scaling Lean & Agile Development - Chapter 5 (False Dichotomies)
  - Action: Facilitate a Systems Modeling exercise with your team using Causal Loops Diagrams
- Module 6: Large-Scale Scrum
  - Learning Objectives:
    - Why LeSS
    - How LeSS is a Scrum-based approach to scaling
    - The impact of LeSS on the organizational design
    - The differences between component teams and feature teams
    - The LeSS roles
    - The definition of Fake Product Owners and why LeSS avoids them
    - The LeSS Complete Diagram, including principles, rules, guides, and experiments
    - How LeSS Huge was designed to scale over ~8 teams
    - Where to find additional LeSS resources
  - Handouts: LeSS Principles
  - Videos: Introduction to Large-Scale Scrum
  - Activities: None
  - Assignment: Read Scaling Lean & Agile Development - Chapter 6 (Be Agile)
  - Action: Consider false dichotomies you may have held at one time, and how you can use that insight to help others transition
- Module 7: Feature Team Adoption Map
  - Learning Objectives:
    - How to create a Feature Team Adoption Map
  - Handouts: None
  - Videos: None
  - Activities: Create a feature team adoption map for your team
  - Assignment: Read Scaling Lean & Agile Development - Chapter 7 (Feature Teams), 8 (Teams)
  - Action: Consider the design of your organization. Is it ideal? What would you change?
- Module 8: Wrap-Up
  - Learning Objectives:
    - LeSS review
  - Handouts: None
  - Videos: None
  - Activities: None
  - Assignment: Read Scaling Lean & Agile Development - Chapter 9 (Requirement Areas), 10 (Organization), 11 (Large-Scale Scrum)
  - Action: None