

# Agile Software Engineering

Enabling technical agility for the Lean enterprise

The introduction of Lean-Agile and DevOps principles and practices into software engineering has sparked new skills and approaches that help organizations deliver higher-quality, software-centric solutions faster and more predictably.

This three-day, workshop-oriented course explores foundational principles and practices and how continuous flow of value delivery and built-in quality are enabled by XP technical practices, Behavioral-Driven Development (BDD), and Test-Driven Development (TDD). Attendees will learn proven practices to detail, model, design, implement, verify, and validate stories in a SAFe\* Continuous Delivery Pipeline, as well as the practices that build quality into code and designs. Attendees will also explore how software engineering fits into the larger solution context and understand their role in collaborating on intentional architecture and DevOps.

With SAFe<sup>®</sup> 5 Agile Software Engineer certification





# Agile Software Engineering

With SAFe<sup>®</sup> 5 Agile Software Engineer Certification Based on version 5.0 of SAFe

#### Who will benefit?

This course is for the technical members of an Agile Team-developers and testers. Product Owners, Scrum Masters, Managers, and others with a less-technical background would also benefit and gain an understanding of the development process for more effective team collaboration.

### **Prerequisites**

All are welcome to attend the course, regardless of experience. However, meeting the following prerequisites will make the training more productive.

- Understanding of SAFe for Teams
- Background in engineering, development, managing development, or quality assurance

The discipline of software engineering has evolved over the past decade with the introduction of Lean-Agile and DevOps principles and practices. New skills and approaches to software engineering help organizations deliver software-centric solutions faster, more predictably, and with higher quality.



#### What you get

The class registration includes:

- Student workbook
- Preparation and eligibility to take the ASE exam
- One-year membership to the SAFe **Community Platform**
- Certification of completion
- SAFe Agile Software Engineer certification upon passing the exam
- One Certification exam attempt (retakes at an additional fee)

"Inspection does not improve the quality, nor guarantee quality. Inspection is too late. The quality, good or bad, is already in the product. Quality cannot be inspected into a product or service; it must be built into it."

W. EDWARDS DEMING



#### What you'll learn

To perform the role of a SAFe® Agile Software Engineer, you should be able to:

- Define Agile Software Engineering and the underlying values, principles, and practices
- Apply the Test-First principle to create alignment between tests and requirements
- Create shared understanding with Behavior-Driven Development (BDD)
- Communicate with Agile modeling
- Design from context for testability
- Build applications with code and design quality
- Utilize the test infrastructure for automated testing
- Collaborate on intentional architecture and emergent design
- Apply Lean-Agile principles to optimize the flow of value
- Create an Agile Software Engineering plan

### **₽**₽

#### **Topics covered**

- Introduction to Agile Software Engineering
- Connecting Principles and Practices to Built-In Quality
- Accelerating Flow
- Applying Intentional Architecture
- Thinking Test-First
- Discovering Story Details
- Creating a Shared Understanding with Behavior-Driven Development (BDD)
- Communicating with Models
- Building Systems with Code Quality
- Building Systems with Design Quality
- Implementing with Quality



#### **Annual renewal**

Certifications expire one year from the date the certification is earned.

• Annual renewal fee: \$295

# SAFe<sup>®</sup> curriculum

The extensive and evolving Scaled Agile curriculum is a cornerstone for implementation success and a key part of an overall transformation. Our full portfolio of world-class courseware helps organizations unlock business results, retain teams, and attract new talent. And our in-demand certifications help individuals thrive as key players within a SAFe organization and advance throughout their career in practicing, consulting, or training others in the Framework.



#### SAFe courses and certifications include:

- Implementing SAFe<sup>®</sup> with SAFe<sup>®</sup> 5 Program Consultant certification
- Leading SAFe<sup>®</sup> with SAFe<sup>®</sup> 5 Agilist certification
- SAFe<sup>®</sup> for Teams with SAFe<sup>®</sup> 5 Practitioner certification
- SAFe<sup>®</sup> Scrum Master with SAFe<sup>®</sup> 5 Scrum Master certification
- SAFe® Advanced Scrum Master with SAFe® 5 Advanced Scrum Master certification
- SAFe<sup>®</sup> Release Train Engineer with SAFe<sup>®</sup> 5 Release Train Engineer certification
- SAFe<sup>®</sup> Product Owner/Product Manager with SAFe<sup>®</sup> 5 Product Owner/Product Manager certification

- SAFe® DevOps with SAFe® 5 DevOps Practitioner certification
- SAFe<sup>®</sup> for Government with SAFe<sup>®</sup> 5 Government Practitioner certification
- Agile Software Engineering with SAFe<sup>®</sup> 5 Agile Software Engineer certification
- SAFe<sup>®</sup> for Architects with SAFe<sup>®</sup> 5 Architect certification
- Lean Portfolio Management
  with SAFe® 5 Lean Portfolio Management certification
- SAFe<sup>®</sup> Agile Product and Solution Management with SAFe<sup>®</sup> 5 Agile Product and Solution Management certification

## **START YOUR SAFe CAREER JOURNEY AT** scaledagile.com/learning