

# Certified Scrum Developer (CSD)

## Introduction

Strengthen your technical skills in agile product development. Certified Scrum Developers (CSD®) have demonstrated — through training that ensures they have a working understanding of Scrum and agile principles and have learned specialized Agile engineering skills. The Certified Scrum Developer® course is designed for product developers who are working in a Scrum environment. The goal is to expose students to the most important tools and techniques needed to build good products in the iterative and incremental fashion that Scrum requires. These ideas are central to the entire field of agile product development.

By earning a Certified Scrum Developer® certification, you:

- Learn the foundations of Scrum and the scope of the Certified Scrum Developer's role from the best minds in development agility
- Demonstrate to employers and peers your understanding of core Scrum knowledge
- Expand your career opportunities by staying relevant and marketable across all industry sectors adopting Agile practices
- Engage with a community of recognized Scrum experts who are committed to continuous improvement

## Learning Objective

The CSD Learning objectives cover the critical skills in coding, testing, refactoring, continuous integration, and other related topics that are needed for successful team software development in the Scrum style.

## Course Outline

There are currently two tracks to achieve CSD certification (detailed below). The courses for both tracks can be taken in any order. Once you complete a track, you will receive a notification to accept your CSD license, and the CSD certification will be added to your profile.

### MODULE 1: CSD INTRO

#### Iteration1

- Discussion on Essence of Agile
- Discussion on Scrum Basic
- Discussion on Sprint

#### Iteration 2

- Discussion on Scrum Roles
- Discussion on Scrum Ceremonies
- Discussion on Scrum Artifacts

### MODULE 2: CSD ELECTIVE

#### Iteration 3

- Discussion on Acceptance Test Driven Development
- Discussion on Behaviour Driven Development
- Difference between ATDD, BDD, and TDD
- Discussion on how BDD fits in Agile
- Code example on BDD

#### Iteration 4

- Classroom Exercise on BDD
- Discussion on Gherkin
- Discussion on Best Practices for Writing Feature File
- Discussion on FitNesse and Selenium

### MODULE 3: TECHNICAL TRACK

#### Iteration 5

- Discussion on Agile Architecture and Design
- SOLID design principles
- Design Patterns
- AntiPatterns
- Code example on the SOLID design principle

#### Iteration 6

- Code example on SOLID design principles – Continued
- Discussion on Collaboration
- Customer collaboration
- Team collaboration

### MODULE 4: TECHNICAL TRACK

#### Iteration 7

- Discussion on Test Driven Development
- Discussion on Unit Test Framework
- Discussion on Red, Green and Refactor concept
- Code sample on TDD

#### Iteration 8

- Classroom exercise on TDD
- Introduction to Refactoring
- Why and when to refactor
- Classroom exercise on Refactoring

### MODULE 5: TECHNICAL TRACK

#### Iteration 9

- Discussion on Continuous Integration
- Discussion on the benefit of Continuous Integration
- Discussion on Build Type
- Discussion on Continuous Testing, Inspection, Deployment, and Feedback

#### Iteration 10

- Code demo on Continuous Integration
- Exercise on TDD, Refactoring and CI
- Recap

## Prerequisites

To earn a CSD®, we require at least two days of formal training taught by a Scrum Alliance-approved CSD Educator.

Once you complete your course, you will receive a notification to accept your CSD® license, and the CSD® certification will be added to your profile. Your certification is valid for two years.

Your Path with Scrum Alliance

- Certified Scrum Developer® course

- A-CSD<sup>SM</sup> course
- Certified Scrum Professional — Developer<sup>SM</sup> course

During your CSD® courses, you must demonstrate an understanding of Scrum and agile development practices by passing a CSD® assessment provided by your educator. The assessment may be an exam administered by the educator to test your knowledge, or it may be an active, classroom-based assessment. When a CSD educator uploads a student's information into our system, they are recommending the student for certification.

## Target Audience

- IT professionals
- Architects
- Business Analysts
- Developers
- QA testers
- Engineers
- Project/Product Managers
- CSM Credential Holders

## Duration

16 hours training course