



Team Foundation Server 2017 Developer Foundations

This two-day course will introduce you to TFS' foundational capabilities so that you can plan, track, and manage work while ensuring high-quality code in your next project.

Length Days: 2 | Length Hours: 16

Target Audience

This course is intended for members of a development team that uses Visual Studio. Attendees should be comfortable using a current version of Windows and be able to read and understand C# code.

Course Objectives

At course completion, attendees will have had exposure to:

- Visual Studio editions and features
- Comparing TFS and Visual Studio Team Services
- Planning and creating team projects
- Selecting an appropriate process template
- Managing team projects using Team Explorer
- Configuring a team project for their team's needs
- Creating, querying, and managing work items
- Using the browser-based web portal
- Using the Agile planning tools
- Configuring alerts and notifications
- Using Microsoft Office as TFS client
- Creating work item charts and reports
- Installing an extension from the Marketplace
- Using Team Foundation Version Control
- Configuring a workspace
- Basic and advanced version control scenarios
- Associating a work item during check-in
- When, why, and how to branch code
- Using the MSSCCI provider from other, legacy IDEs
- Creating and running C# unit tests

- Calculating and using code coverage
- Using Visual Studio to perform a code review
- Using Code Metrics, Code Analysis, & Code Clone Analysis to identify and manage technical debt
- Automating the building process
- Automating the testing process

Course Outline

1 - Team Projects

- Visual Studio editions and ALM features
- Team projects and team project collections
- Configure security, team, areas, and iterations
- Plan, rename, and delete team projects
- Manage using Team Explorer and the web portal

2 - Work Items and Queries

- Create, link, query, and manage work items
- Chart, tag, and report work items
- Configure alerts and notifications
- Use web portal, MS Excel, and MS Project

3 - Planning and Tracking Work

- Create and manage a product backlog
- Plan and track work during a sprint
- Use Agile backlog and Kanban board
- Execute and track work using the task board

4 - Version Control

- Setup and use TFS version control system
- Basic and advanced workflows
- Associate a work item during check-in
- Create labels and shelvesets
- Branch and merge code effectively

5 - Ensuring Code Quality

- Create, run, and refactor C# unit tests
- Calculate Code Coverage
- Use Code Metrics and Code/Code Clone Analysis
- Conduct a Code Review

6 - Automating the Build Process

- Overview of the build system
- Create and queue a build
- Monitor and manage the build process
- Automate testing and other code quality checks