

# Certified Software Tester (CSTE)

Course length: 4 days

## Course Description

**Course Objective:** You will describe the various testing principles and concepts with special focus on the Certified Software Tester (CSTE) examination objectives.

**Target Student:** This course is intended for software testing professionals appearing for the Certified Software Tester (CSTE) examination.

**Prerequisites:** No specific prerequisites are necessary; however, familiarity with the software development practices and basic principles of software testing will be helpful.

## Course Objectives

Upon successful completion of this course, students will be able to:

- Identify the characteristics of software testing.
- Explain the software test process.
- Explain the various levels of software testing.
- Identify the various testing techniques to determine software quality.
- Describe the various test case design techniques that determine software quality.
- Describe various tasks involved in planning and estimating tests.
- Handle risks during software testing.
- Identify the various strategies of developing and implementing tests to assess the quality of a software product.
- Describe various tasks involved in creating effective test reports.
- Identify the various factors required to build an effective test environment.
- Identify the various skills required to effectively manage a test project.
- Describe the various tasks involved in testing software developed by external organizations.
- Describe security requirements that must be enforced while developing and testing software in order to ensure the overall security of software systems.
- Explain the strategies employed while testing newer technologies.

## Course Content

### Lesson 1: Understanding Software Testing

Topic 1A: Understand the Importance of Testing

Topic 1B: Identify Quality Parameters

Topic 1C: Identify Factors That Affect Software Quality

Topic 1D: Identify Quality Assessment Standards and Models

### Lesson 2: Understanding the Test Process

Topic 2A: Identify Test Phases

Topic 2B: Understand the Testing Workbench Process

Topic 2C: Understand the Incident Life Cycle

Topic 2D: Identify Test Documents



### **Lesson 3: Understanding Test Levels**

Topic 3A: Understand Component Testing  
Topic 3B: Understand Integration Testing  
Topic 3C: Understand System Testing  
Topic 3D: Understand Acceptance Testing

### **Lesson 4: Understanding Testing Techniques**

Topic 4A: Identify Structural Testing Techniques  
Topic 4B: Identify Functional Testing Techniques

### **Lesson 5: Examining Test Case Design Techniques**

Topic 5A: Identify Structure-Based Test Design Techniques  
Topic 5B: Identify Specification-Based Test Design Techniques  
Topic 5C: Identify Experience-Based Test Design Techniques

### **Lesson 6: Planning and Estimating Tests**

Topic 6A: Create a Test Plan  
Topic 6B: Estimate Testing Effort

### **Lesson 7: Handling Risks in Software**

Topic 7A: Identify Software Risks  
Topic 7B: Manage Risks

### **Lesson 8: Implementing Tests**

Topic 8A: Understand the Test Development Process  
Topic 8B: Create Test Cases  
Topic 8C: Describe Test Metrics  
Topic 8D: Analyze Defect Management

### **Lesson 9: Reporting on Tests**

Topic 9A: Define Test Metrics for Test Reports  
Topic 9B: Identify Test Reporting Tools  
Topic 9C: Create Test Reports  
Topic 9D: Perform Test Closure Activities

### **Lesson 10: Building a Test Environment**

Topic 10A: Identify Management Responsibilities  
Topic 10B: Understand Testing Work Processes  
Topic 10C: Manage Test Administration

### **Lesson 11: Managing a Test Project**

Topic 11A: Identify Skills Required to Supervise a Test Project  
Topic 11B: Identify the Leadership Skills Required to Manage a Project  
Topic 11C: Introduce Test Tools in an Organization

### **Lesson 12: Testing Software Developed by External Organizations**

Topic 12A: Analyze the COTS Software Test Process  
Topic 12B: Analyze the Contracted Software Test Process

### **Lesson 13: Evaluating Security Requirements**

Topic 13A: Analyze Internal Controls  
Topic 13B: Assess Security Awareness



### **Lesson 14: Testing Products Developed Using Newer Technologies**

Topic 14A: Analyze the Impact of Implementing Newer Technologies

Topic 14B: Analyze the Challenges of Testing Newer Technologies

Appendix A: CSTE Certification Mapping

