ISTQB® Advanced Security Tester Certification

- Plan, perform, and evaluate security tests from a variety of perspectives
- Evaluate an existing security test suite and identify any additional security tests needed.
- Analyze a given set of security policies and procedures, along with security test results, to determine effectiveness.
- For a given project scenario, identify security test objectives based on functionality, technology attributes and known vulnerabilities.
- Analyze a given situation and determine which security testing approaches are most likely to succeed in that situation.
- Identify areas where additional or enhanced security testing may be needed.
- Evaluate effectiveness of security mechanisms.
- Help the organization build information security awareness.
- Demonstrate the attacker mentality by discovering key information about a target, performing actions on a test application in a protected environment that a malicious person would perform, and understand how evidence of the attack could be deleted.
- Analyze a given interim security test status report to determine the level of accuracy, understandability, and stakeholder appropriateness.
- Analyze and document security test needs to be addressed by one or more tools.
- Understand the role of security standards (including security test standards), where to find them, and how to stay current with security developments worldwide.

With the prevalence of cyber security breaches, it is clear that more attention is needed in testing that security defenses are in place and working effectively. This course and certification covers much more than just penetration testing. Certainly, penetration testing is an important part of security testing, but there are many other threats and vulnerabilities that require other security testing approaches.

Who Should Attend?

- Security testers
- Software testers who wish to develop a specialty in security testing
- Security administrators who wish to learn how to test new and existing defenses
- Developers who want to learn secure coding techniques
- Project managers who want to learn how security testing fits in the project lifecycle

Pre-Qualification for the Advanced Certification Exam

This course follows the ISTQB Advanced Security Tester Syllabus.Exercises are performed for every K3 (apply) and K4 (analyze) learning objective. To sit for the ISTQB Advanced Security Tester exam, you must hold the ISTQB Certified Tester, Foundation Level (CTFL) designation and have 3+ years of software testing and related experience. After pre-qualification is completed, students will receive an exam voucher. The exam can be taken online from home/office or at a testing center.

Prerequisites

Basic security and security testing concepts are assumed knowledge.If you wish to take the course without sitting for the exam, there are no additional prerequistes.

Course Outline

The Basis of Security Testing
Security Risks
Information Security Policies and Procedures
Security Auditing and Its Role in Security Testing

Security Testing Purposes, Goals and Strategies
Introduction
The Purpose of Security Testing
The Organizational Context
Security Testing Objectives
The Scope and Coverage of Security Testing Objectives
Security Testing Approaches
Improving the Security Testing Practices

Security Testing Processes
Security Test Process Definition
Security Test Planning
Security Test Design
Security Test Execution
Security Test Evaluation
Security Test Maintenance

Security Testing Throughout the Software Lifecycle
Role of Security Testing in a Software Lifecycle
The Role of Security Testing in Requirements
The Role of Security Testing in Design
The Role of Security Testing in Implementation Activities
The Role of Security Testing in System and Acceptance Test Activities
The Role of Security Testing in Maintenance

Testing Security Mechanisms
System Hardening
Authentication and Authorization
Encryption
Firewalls and Network Zones
Intrusion Detection
Malware Scanning
Data Obfuscation
Training

Human Factors in Security Testing
Understanding the Attackers
Social Engineering
Security Awareness

Security Test Evaluation and Reporting
Security Test Evaluation
Security Test Reporting

Security Testing Tools
Types and Purposes of Security Testing Tools
Tool Selection

Standards and Industry Trends
Understanding Security Testing Standards
Applying Security Standards
Industry Trends