

## Course Introduction

The ISTQB Certified Tester Foundation Level course is a three day course explaining the fundamentals in software testing. This course has been accredited by the ISTQB and it addresses the ISTQB Foundation Syllabus.

The course contains exercises, practice exams and games to highlight key aspects of the syllabus to assist the delegate in the understanding of the concepts and methods presented.

## The Exam

The Foundation Certificate is awarded to those who pass a written one hour multiple-choice exam which is set by the ISTQB. Course participants will be given the opportunity to take the examination after the course.

## Who Will Benefit?

This 3-day course is appropriate for testers, test team leaders, developers, development managers, business analysts, and anyone wishing to gain ISTQB Certified Tester Foundation Level certification.

## Prerequisites

None. However we strongly suggest that delegates wishing to take the Foundation exam should have at least 6 months experience in testing.

## Course Objectives

To provide an understanding of the fundamental principles of testing and explain different testing terminology. The course also provides an overview of different techniques, both dynamic and static and how to apply them.

## Skills Gained

- Learn about the differences between the testing levels and targets.
- Know how to apply both black and white box approaches to all levels of testing
- Understand the differences between the various types of review and Static Analysis.
- Learn aspects of test planning, estimation, monitoring and control.
- Communicate better through understanding standard definitions of terms.
- Gain knowledge of the different types of testing tools and the best way of implementing those tools

## Course Content

### Fundamentals of Testing

This section looks at why testing is necessary, what testing is, and explains general testing principles, the fundamental test process, and psychological aspects of testing.

### Testing throughout the software lifecycle

Explains the relationship between testing and life cycle development models, including the V-model and iterative development. Outlines four levels of testing

- Component testing
- Integration testing
- System testing
- Acceptance testing

Describes four test types, the targets of testing:

- functional
- non-functional characteristics
- structural
- change-related

Outlines the role of testing in maintenance.

### Static Techniques

Explains the differences between the various types of review, and outlines the characteristics of a formal review. Describes how static analysis can find defects.

### Test Design Techniques

This section explains how to identify test conditions (things to test) and how to design test cases and procedures. It also explains the difference between white and black box testing. The following techniques are described in some detail with practical exercises :

- Equivalence Partitioning
- Boundary Value Analysis
- Decision Tables
- State Transition testing
- Statement and Decision testing

In addition, use case testing and experience-based testing (such as exploratory testing) are described, and advice is given on choosing techniques.

### Test Management

This section looks at organisation implications for testing and describes test planning and estimation, test monitoring and control. The relationship of testing and risk is covered, and configuration management and incident management.

### Tool Support for Testing

Different types of tool support for testing are described throughout the course. This session summarises them, and discusses how to use them effectively and how best to introduce a new tool.