

ISTQB/ISEB Foundation Certificate in Software Testing

Course Description

This course presents an opportunity for South Africans to gain an internationally accredited software testing qualification. The International Software Testing Qualification Board (ISTQB) has a wide international representation and now has a revised syllabus at foundation level that supersedes that of the International Systems Examinations Board (ISEB) of the British Computer Society. The previous ISEB Foundation Level Certificate in Software Testing remains recognised by the ISTQB. Test and Data Services continues a tradition of training excellence in South Africa by now offering the new ISTQB course. The course covers the fundamental skills required by all software testers and certification is awarded to those who pass a written one hour multiple-choice exam.

The *ISTQB/ISEB Foundation Certificate in Software Testing* provides a competitive advantage to companies which want their software testing to match international standards.

Intended Audience

This ISTQB course will be of significant value to testers who have 3 months or more testing experience, test analysts, test managers who have not yet earned the qualification, business analysts, and developers.

Course Content

The course covers the following areas:

- **Fundamentals of testing**
The course is introduced by defining testing terminology and all the fundamental aspects of the testing process such as why testing is necessary, what it is, general testing principles, the fundamental test process and the psychology of testing. Important concepts in testing, such as the difference between regression testing and retesting are discussed. Good communication and the importance of independence for successful testing are emphasised.
- **Testing throughout the software life cycle**
In this module the role of testing in the software development life cycle, the targets of testing and maintenance testing are explained. Software development models are covered. What constitutes good testing in any model is emphasised. Test levels are discussed within a V-model. A clear distinction is made between the roles of verification and validation testing. Important principles governing the economic viability of testing are addressed.
- **Dynamic testing techniques**
Dynamic testing implies that testing is performed while the program code is running. The techniques are usually equivalence partitioning, boundary value analysis, state transition testing, cause-effect graphing, negative testing and random testing. Most testing is done in one of these ways. These techniques have to be understood for the testing process to be effective. 'Effective' means that no serious faults are missed.

- **Static techniques**

This module covers techniques performed without executing any program code. The two different test processes, using static or dynamic techniques, are distinguished. Static testing techniques which are covered are reviews, data flow analysis, control flow graphing, and complexity analysis. Static analysis through the use of tools can be beneficial, especially in discovering faults in areas of the code which would typically be unreachable.
- **Test design techniques**

In this module the identification of test conditions and the design of test cases are addressed. Test design techniques: specification-based, structure-based and experience based. Examples of case testing are discussed, as well as factors to consider in the choice of techniques.
- **Test management**

This module covers important test management principles, such as, the benefits and pitfalls of various test organisation structures, influences on test planning and estimation, test progress monitoring and control with appropriate tools, configuration management with its tools, risk and testing and incident management and finally applying testing standards. Independence, reporting and the use of appropriate tools are emphasised.
- **Tool support for testing**

In this module key issues for the effective use of tools are discussed. Specifically types of test tools, the effective use of the tools, including their benefits and risks, and the introduction of a tool into an organisation are the core issues. A summary of tool types and specific considerations are covered throughout the course.

Course Details

- **Prerequisites**

Previous experience in software testing is not necessary; however, general knowledge of the information technology industry is an advantage.
- **Course presentation and duration**

The course is presented by an experienced software testing practitioner who has been accredited by ISEB. The course duration is three days. It runs from 8:00 to 17:30. This includes a lunch and two tea breaks daily.
- **Training style**

The course is conducted in a classroom style. Candidates use practical tasks to consolidate theoretical concepts.
- **Course materials, certification and assessment**

Comprehensive course notes are provided. During the course several practical worksheets will be issued. These will assist candidates in their preparation for the final exam, which will be written on the last day of the course.

On completion of this course, and passing the externally invigilated, ISEB-set examination, candidates receive the internationally accredited *ISTQB/ISEB Foundation Certificate in Software Testing*.

- **Training Venues**

Test and Data Services presents courses at several well-established training facilities in Midrand (near Johannesburg and Pretoria), Cape Town and Durban. Training can be arranged at the client's premises depending on adequate facilities and candidate numbers.

Contact

	Gauteng	Cape Town	All Other Areas
Telephone	(011) 848-7600	(021) 447-1147	(011) 848-7600
Fax	(011) 848-7611	(021) 447-1148	(011) 848-7611
Physical Address	Tuscan Gardens Office Park 1740 14 th Street Noordwyk	A308 Gate House Black River Office Park Fir Street Observatory	
Postal Address	P O Box 14138 Lyttelton 0140	P O Box 12968 Mowbray 7705	P O Box 14138 Lyttelton 0140
Training Enquiries	training@testdata.co.za (011) 848-7600	training.ct@testdata.co.za (021) 447-1147	training@testdata.co.za (011) 848-7600
General Enquiries	info@testdata.co.za (011) 848-7600	info.ct@testdata.co.za (021) 447-1147	info@testdata.co.za (011) 848-7600
Test Focus Magazine	info@testfocus.co.za (011) 848-7600	info@testfocus.co.za (011) 848-7600	info@testfocus.co.za (011) 848-7600