PROFESSIONAL SOFTWARE TESTER

This course gives you a perfect introduction to requirements management, software testing, test design and exploratory testing together with practical skills. You get tools and tips which help you to set up testing in an organisation and promote the values of software testing. After completion of the course, you have the opportunity to become ISTQB® Foundation Certified Tester. This internationally recognized certification increases your chances for future employments.

The course comprises two parts. First, a self-study part and after that a five day course part led by a professional trainer. The self-study part starts approximately two months before the course. You gain access to the e-learning version of the ISTQB Foundation Level course. The e-learning version is a fast and flexible way of learning. Step by step you follow the course path. All modules can be repeated as many times as you want. You will be well prepared for the trainer-led course part.

The second course part starts with requirements management, followed by training in software testing, test design and exploratory testing. You will gain a broader understanding of software testing trough interesting lectures and different practical exercises.

After these five days you are well-prepared to write the ISTQB Foundation Level examination and prepared to take on fundamental test assignments. The examination will take place approximately one week after the course.

WHO SHOULD ATTEND?

The course Professional Software Tester is suitable if you have a degree in Computer Science, Electrical Engineering, Telecommunications, Information Systems or a similar education from university. It is also suitable if you have worked in software development projects for some years and now want to deepen your knowledge within software testing.

LEVEL AND PREREQUISITIES

Previous experience of software testing or developing can make it easier to relate the course content to actual working situations. Mastering English is a precondition.

UPON COMPLETING THE COURSE, YOU SHOULD BE ABLE TO:

- Select the correct requirement techniques and methods
- Elicit requirements and write requirement specifications
- Trace and document requirements
- Understand and explain the value of software testing
- Understand different test roles and their responsibilities during the test process
- Use different techniques for black-box and white-box testing
- Define a test strategy based on project and product prerequisites
- Work with defining and testing different quality attributes
- Use exploratory testing and different variants in the form of for example testing tours

COURSE STRUCTURE

The teaching is based on a combination of instructor-led explanatory sessions, discussions and practical exercises. By applying your knowledge to concrete and realistic tasks, you gain a better understanding of the concepts taught in the course. The course is held in English. Course material in English is included.

COURSE CONTENT

Requirements management - 0,5 day

Introduction	• Requirements classification, Requirements process • Planning and follow-up • Risk management • Development methods • Requirements elicitation • Requirements analysis • Requirements documentation • Quality assurance of requirements
Requirements tools	• Planning and follow-up • Requirements elicitation • Requirements analysis • Requirements documentation • Tracking of requirements • Requirements specification

ISTQB Foundation Level - 2.5 days

Introduction	• The basics of testing • Why is testing necessary? • What is testing? • Seven testing principles • Fundamental test processes • The psychology of testing • Code of ethics
Testing throughout the software lifecycle	• Software development models • Test levels • Test types • Maintenance testing
Static techniques	• Statistical Static techniques and test processes • Review process • Static analysis by tools
Test design techniques	• Test development processes • Categories of test design techniques • Specification-based techniques (black-

	box)
	• Structure-based techniques (white-box)
	• Experience-based techniques
	• Choosing test techniques
Test management	• Test organization
	• Test planning and estimation
	• Test progress monitoring and control
	• Configuration management
	• Risk and testing
	• Incident management
Tool support for testing	• Types of test tools
	• Effective usage use of tools: potential benefits and risks
	• Introducing a tool in an organisation

Applied Test Design and Exploratory Testing - 2 days

Analysis and design	• From requirements to testing
	• What is a good test?
	• Test cases and test charters
	• Manual and automated tests
	• Exploratory tests and Session Based Testing
Implementation	• Action plan
	• Test packages and test chains
Risk-based test techniques	• Project factors and risk heuristics
	• Error lists and attacks
Data-based test techniques	• Equivalence partitions
	• Boundary value analysis
	• Domain tests
	• Syntax tests
	• Data and time cycles
Combinational test techniques	• Base choice and 1- wise/ 2-wise /n-wise coverage
	• Decision tables and decision trees
	• State transition-based test techniques
	• State transition diagrams and state transition tables
	• Simple state transition plans and state transition pairs
User-centered test techniques	• Scenario tests
	• Soap opera tests

THE TRAINER

Dr. Magnus C. Ohlsson, Quality Assurance Specialist

The course Professional Software Tester is held by Magnus C. Ohlsson, who has focused on development and quality assurance of software for almost 20 years. Today he is a Quality Specialist and Test Strategist at the Swedish QA company System Verification, specializing in process improvement. He has a M.Sc. in Software Engineering (MSSE) from University of Karlskrona/Ronneby and a Ph.D. from the Technical University of Lund. He has published several articles and is the co-author of the book "Experimentation in Software Engineering".