

Course Syllabus

Software Testing 2 7.5 Credits*, First Cycle

Learning Outcomes

The overall goal of the course is for the student to work with activities related to automatic software testing and the selection of test tools and techniques for developing test automation. The course provide a broader theoretical basis for test documentation and test management.

Upon completion of the course, students will be able to:

- perform software testing higher up in the V-model for system development, such as system tests, regression tests, and acceptance tests
- describe and perform non functional testing
- implement automatic tests within different test levels
- put test management and estimation techniques into practice
- plan, design, and develop software tests for demanding and specialised areas
- apply, evaluate, and analyse current requirements, specifications, traceability, relevant tools, and agile working methods
- plan, design, and develop software for conducting software testing in order to improve the quality of the software
- write and plan documentation and present it to stakeholders for their approval

Course Content

The course covers general theories in software testing, such as Input Space Partitioning, Graph Coverage, and Logic Tests. Non-functional tests, such as Performance Testing, Load Testing, Stress Testing, and Security Testing, are also covered.

Students complete a large-scale IT project in which they take different roles in the development and testing process based on the requirements of a client. Students complete the IT project out according to accepted ALM (Application Lifecycle Management) working methods. Students put into practice methods for testing handheld devices, and the challenges these devices pose for testing are highlighted in relation to this. The results of various tests in the project are reported to the client.

Students conduct the testing using both their own software and the software of other

students, or the software systems of external parties. Students report on their experiences and the results related to this.

In all cases, relevant documentation methods are used for SUT (System Under Test). The course may also include guest lectures with industrial experts within relevant fields.

Assessment

The examination consists of individual written and oral presentations of assignments and a group presentation at a seminar (7.5 Credits).

Forms of Study

Lectures, lessons, group project, labs and seminars.

Grades

The Swedish grades U–G.

Prerequisites

Software Testing 1, 7.5 credits First Cycle

Subject:

Microdata Analysis

Group of Subjects:

Other Interdisciplinary Studies

Disciplinary Domain:

Natural Science, 100%

This course can be included in the following main field(s) of study:

1. Microdata Analysis

Progression Indicator within (each) main field of study:

1. G1F

Approved:

Approved 11 March 2021

Valid from 26 May 2021