



## Course syllabus

Faculty of Technology

Department of Computer Science and Media Technology

1DV609 Mjukvarutestning, 7,5 högskolepoäng

Software Testing, 7.5 credits

### **Main field of study**

Computer Science

### **Subject Group**

Informatics/Computer and Systems Sciences

### **Level of classification**

First Level

### **Progression**

G1F

### **Date of Ratification**

Approved by Faculty of Technology 2020-03-06

The course syllabus is valid from autumn semester 2020

### **Prerequisites**

30 credits in Computer Science including 15 credits programming courses.

## Objectives

The aim of the course is to provide students with basic knowledge in software testing.

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

- define fundamental concepts such as requirement, error, quality, traceability, reproducibility, testability and failure rate
- describe and explain fundamental principles in software testing
- describe and explain the relationship between software quality and software testing
- individually explain, apply, automate and document common software testing methods and techniques
- individually or in a group plan, document, and execute software testing for a small software product
- critically evaluate literature and other information sources in the field.
- describe the importance of testing for sustainable development in software in the society of today

## Content

Course contents:

- Testing terminology
- Testing methods and techniques
- Unit testing
- Integration testing
- System testing
- Regression testing
- Acceptance testing
- Testing tools
- Analysis, communication, and documentation of software tests and test results

## Type of Instruction

Teaching consists of lectures, and practical work. Practical work is carried out individually or in groups. Some activities are mandatory.

## Examination

The course is assessed with the grades A, B, C, D, E, Fx or F.

The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).

- Practical work, 3 credits (A-F)
- Assignment, 3 credits (A-F)
- Presentation, 0.5 credits (P/F)
- Examination, 1 credit (P/F)

Repeat examination is offered in accordance with Local regulations for courses and examination at the first and second-cycle level at Linnaeus University.

If the university has decided that a student is entitled to special pedagogical support due to a disability, the examiner has the right to give a customised exam or to have the student conduct the exam in an alternative way.

## Course Evaluation

During the implementation of the course or in close conjunction with the course, a course evaluation is to be carried out. Results and analysis of the course evaluation are to be promptly presented as feedback to the students who have completed the course. Students who participate during the next course instance receive feedback at the start of the course. The course evaluation is to be carried out anonymously.

## Credit Overlap

The course cannot be included in a degree along with the following courses of which the content fully, or partly, corresponds to the content of this course: 2DV110 Software testing, 7.5 credits

2DV610 Software testing, 7.5 credits

## Other

Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

## Required Reading and Additional Study Material

### Reading list

Beck, Kent, "Test Driven Development", Pearson Education, ISBN:9780321146533, 240 pages

Developer Testing: Building Quality into Software, Alexander Tarlinder, ISBN078 0 12

Developer Testing, Building Quality into Software, Alexander Lammert, ISBN 978-0-13-429106, 313 pages