



# COURSE SYLLABUS

## Storskalig programvarutestning

### Large-Scale Software Testing

2,5 ECTS credit points (2,5 högskolepoäng)

**Course code:** PA2549

**Educational level:** Second cycle

**Course level:** A1N

**Field of education:** Technology

**Subject group:** Computer Technology

**Subject area:** Computer Science, Software Engineering

**Version:** 3

**Applies from:** 2017-08-28

**Approved:** 2017-03-14

**Disused:** 2019-12-17

#### 1 Course title and credit points

The course is titled Large-Scale Software Testing/Storskalig programvarutestning and awards 2,5 ECTS credits. One credit point (högskolepoäng) corresponds to one credit point in the European Credit Transfer System (ECTS).

#### 2 Decision and approval

This course is established by 2015-10-23. The course syllabus was revised by Head of Department of Software Engineering and applies from 2017-08-28. Reg.no: BTH-4.1.1-0550-2017

#### 3 Objectives

The purpose is to equip software engineers with an understanding of challenges of "scale" when testing — in terms of the size and complexity of both the software system and the organization within which the testing activities occur — and experience of specific testing techniques and tools that address them.

#### 4 Content

The course is organized into 2 modules:

1. Testing large-scale software systems
  2. Testing within large-scale organisations
- Module 1 considers scale in terms of the size and complexity of the software system under test, the challenges these characteristics present to testing, and testing techniques that address these challenges. Module 2 considers scale in terms of the size and complexity of the development and testing organisation itself - for example, within a large software project, or when testing teams are shared across multiple projects.

#### 5 Aims and learning outcomes

On completion of the course the student will be able to:

*Knowledge and understanding*

- explain the challenges of large-scale software

testing using both a technical and organisational perspective

- describe approaches that address these challenges

*Competence and skills*

- apply a technique for testing large-scale software systems and interpret the results
- identify and use suitable tools to facilitate these testing techniques

*Values and Attitudes*

- reflect on the relevant important measures of "scale" that are relevant to their own testing work?
- critically analyse research from academia and industry on large-scale testing

#### 6 Learning and teaching

This course supports learning at a distance.

Teaching material is provided online such as video lectures, interviews, research articles etc. These learning activities are supported by discussion with and feedback from lecturers.

Each module has a summative assessment in one of two forms: either identifying and applying a testing technique in a large-scale context; or reviewing and analysing the state-of-the-art on a specific challenge of large-scale testing.

English

#### 7 Assessment and grading

##### Examination of the course

Code	Module	Credit	Grade
1710	Assignment 1	1.5 ECTS	G-U
1720	Assignment 2	1 ECTS	G-U

The course will be graded G Pass, UX Fail, supplementation required, U Fail.

#### 8 Course evaluation

The course coordinator is responsible for systematically gathering feedback from the students in course evaluations and making sure that the results of these feed back into the development of

the course.

**9 Prerequisites**

At least 120 credits in a technical subject and a minimum of 2 years professional experience in software development (shown by, for example, a work certificate from an employer).

**10 Field of education and subject area**

The course is part of the field of education and is included in the subject area Computer Science and the subject area Software Engineering.

**11 Restrictions regarding degree**

The course cannot form part of a degree with another course, the content of which completely or partly corresponds with the contents of this course.

**12 Course literature and other teaching material**

A compendium of videos, study notes, and research articles is provided via a virtual learning environment, together with recommendations for further reading.

