



## Course syllabus

Faculty of Technology

Department of Computer Science and Media Technology

4DV610 Adaptiva mjukvarusystem, 7,5 högskolepoäng

Adaptive Software Systems, 7.5 credits

### **Main field of study**

Computer Science

### **Subject Group**

Informatics/Computer and Systems Sciences

### **Level of classification**

Second Level

### **Progression**

A1F

### **Date of Ratification**

Approved by Faculty of Technology 2014-10-03

The course syllabus is valid from autumn semester 2015

### **Prerequisites**

90 credits in Computer Science or equivalent.

## Objectives

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

- understand the basic principles of adaptive software systems
- understand the role of software architecture in adaptive software systems
- critically evaluate research studies of adaptive software systems
- design an adaptive software system
- implement an adaptive software system.

## Content

The course gives an overview of adaptive software systems and explains the central role of software architecture for adaptive systems. Students will study and critically examine research studies of adaptive software systems. Students will have the opportunity to get hands-on experience from designing and implementing an adaptive software system.

The course covers the following topics:

- introduction to adaptive software systems
- models, architectures and framework for adaptive systems
- evaluation of research studies of adaptive systems
- design of an adaptive software system
- hands-on experience with implementing an adaptive system

## Type of Instruction

Lectures, seminars, self-studies, discussions, assignments, controlled exercises.

## 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).

Assessment of student performance is made through written test and/or oral examinations and/or presentation of mandatory assignments. The assessment method is decided at the start of the course.

Students who do not pass the regular examination will be offered retrials close to the regular examination.

## Course Evaluation

A course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The result of the course evaluation will be filed at the department.

## Credit Overlap

This course cannot be part of a degree in combination with another course in which the content fully or partly correspond to the content of this course: 4DV110 Adaptive Software Systems, 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

### **Required reading**

Relevant literature will be selected together with the supervisor and examiner.