



Course syllabus

Faculty of Technology

Department of Computer Science and Media Technology

1DV600 Programvaruteknik, 7.5 credits

Software Technology

Main field of study

Computer Science

Subject Group

Informatics/Computer and Systems Sciences

Level of classification

First Level

Progression

G1F

Date of Ratification

Approved 2015-05-22

Revised 2015-12-22 by Faculty of Technology. Prerequisites and literature list is revised.

The course syllabus is valid from autumn semester 2016

Prerequisites

1DV506 Problem Solving and Programming, 7.5 credits or 1DV022 Clientbased Web Programming, 7.5 credits or the equivalent.

Objectives

Upon completion of the course, students are able to:

- explain and compare software process models based on process strategies and concepts
- explain and apply basic planning principles and methods on small software projects
- select and apply a process model for a given project
- apply basic development tools for software development.
- explain, select and apply basic software modeling notations
- explain, select and apply basic testing techniques for unit and integration level testing.

Content

The course introduces students to software development projects:

- an introduction to the software technology area
- a survey of and introduction to software development processes
- process strategies and concepts, such as risk, iterative and incremental
- basic project planning principles and strategies
- basic software modeling in UML (class, use case and sequence diagrams)
- introduction to software testing, planning and basic unit and integration testing.
- basic problem solving in teams with applications from computer science I
- oral and written presentations.

Type of Instruction

Teaching consists of lectures, seminars and practical work. Practical work is carried out in groups or individual. Attendance at some activities is 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).

The examination consists individual and group assignments.

Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

Credit Overlap

The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course: 1DV100 Software Technology, 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

Sommerville, I., Software Engineering (10th Ed.), 2015, ISBN-10:0133943038, ISBN-13: 978-0133943030 (350 sidor)

DV,*Distributed material* (articles and manuals). Pages 150.