



Course syllabus

Faculty Board of Science and Engineering

School of Computer Science, Physics and Mathematics

1DV407 Objektorienterad analys och design med UML, 7,5 högskolepoäng

1DV407 Object Oriented Analysis and Design using UML, 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 2009-11-19

Revised 2011-05-13 by School of Computer Science, Physics and Mathematics.

Revision made for English translation of the syllabus.

The course syllabus is valid from autumn semester 2011

Prerequisites

30 credits in the subjects of Computer Science, Computer Technology or Informatics including 1DV402 Starting Out with C# 7.5 credits or equivalent.

Objectives

The course gives basic knowledge in object-oriented analysis and design, the basics of the modeling language UML and the implementation of analysis and design models using an object-oriented programming language.

After completing the course the student is expected to:

- Understand the concepts and principles of object-oriented analysis and design
- Be able to develop object-oriented models in UML for different problems
- Be able to transform object-oriented models into an object-oriented programming language and vice versa
- Have basic knowledge of the use of design patterns
- Have basic knowledge of refactoring as a design method.

Content

The theory provides the fundamental principles, which are used as the basis for the creation of self-knowledge, which is then used in practical applications.

Course elements:

- Principles and methods for object-oriented analysis and domain modeling in UML
- Principles and methods for object-oriented design in UML
- Principles and methods of use of design patterns
- Transformation of object-oriented design to object-oriented implementation and vice versa
- Principles and methods for refactoring of object-oriented implementation method of object-oriented design

Type of Instruction

The course is available on campus or as a distance course. Instruction consists of theory and work on practical applications and tutorials.

Examination

The course is assessed with the grades U, 3, 4 or 5.

For grade 3, the expected learning outcome has to be achieved.

Grades are given after the completion of the course and based on the results of assignments. The assignments judged based on quality, scope and degree of difficulty.

On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

Reexamination will be offered within six weeks under the regular semester periods. The number of examinations is limited to five times.

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.

Required Reading and Additional Study Material

Required Reading

Larman, C *Applying UML and Patterns, 3rd edition*, Prentice Hall, latest edition