



DD2480 Software Engineering Fundamentals 7.5 credits

Programutvecklingsteknikens grunder

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Computer Science and Engineering

Specific prerequisites

knowledge and skills in object oriented programming, 6 credits equivalent to completed course DD1310-DD1319/DD1321/DD1331/DD1333/DD1337/DD100N/ID1018/ID1022.

Knowledge in Algorithms, Data Structures and basic Software Engineering, 6 credits, equivalent to completed course DD1338/DD1320-DD1328/DD2325/ID1020/ID1021.

Intended learning outcomes

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

- apply version control in a software development project
- systematically test and debug programs
- evaluate and apply software development methods and tools
- explain and use patterns for software design and implementation
- use quality assurance techniques and assess their results

in order to

- successfully participate in industrial software development projects and open source projects.

Course contents

Requirements engineering..

Revision control, continuous integration, the life cycle for software.

Design patterns, components.

Testing and debugging.

Software maintenance, configuration management, refactoring.

Quality assurance Estimation and measurement of performance and code complexity, scalability.

Examination

- ÖVN1 - Exercises, 7.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Other requirements for final grade

Passed laboratory assignments.

Ethical approach

- All members of a group are responsible for the group's work.

- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.

Additional regulations

This course contains group projects and labs. Course registration after the official registration period is not possible, since we need to create the groups in the beginning of the course.