ID2207 Modern Methods in Software Engineering 7.5 credits

Moderna metoder inom programvaruutveckling (software engineering)

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

Establishment

Course syllabus for ID2207 valid from Autumn 2019

Grading scale

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

Education cycle

Second cycle

Main field of study

Computer Science and Engineering

Specific prerequisites

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

Having passed the course, the student should be able to:

- formulate definitions of the most important concepts and the methods in software development
- evaluate and use the most important concepts and the methods in software development.

Course contents

Introduction and basic concepts for software development. Abstraction/models and division. Life cycle for software. Unified process. Unified Modeling Language (UML) Specification and analysis of requirements. System design. Object design. Design patterns: Refactoring. Transformation of models to code. Testing. Agile software development and agil emodelling. The bases of extreme programming. DevOps methods.

The practical part of the course contains exercises and a small software development project.

Course literature

The course literature list is announced on the course page.

Examination

- ANN1 - Assignment, 3.0 credits, grading scale: P, F
- TEN1 - Examination, 4.5 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.

Written examination.

In agreement with KTH´s coordinator for disabilities, it is the examiner who decides to adapt the examination for students in possession of a valid medical certificate. The examiner may permit other examination forms at the re-examination of few students

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.