



IV1303 Modern Software Development 6.0 credits

Modern mjukvaruutveckling

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

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

Establishment

Course syllabus for IV1303 valid from Spring 2023

Decision to discontinue this course

The course will be discontinued at the end of Autumn 2024 according to Head of School decision: J-2022-3065. Decision date: 2022-12-19 The course is offered for the last time in Spring 2024. The last opportunity to take an examination in the course is Autumn 2024. Students who wish to complete the course after it has been given for the last time should contact the examiner.

Grading scale

P, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

ID1018 Programming I.

Language of instruction

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

Intended learning outcomes

After passing the course, the student shall be able to

- describe the software development process and its components
- apply his/her knowledge in modern software development to be able to create a software system
- explain the interplay between different software development activities in an organisation
- from a holistic perspective handle issues independently and creatively and analyse different solution methods
- critically and systematically use knowledge to evaluate and improve modern software development methods.
- To handle different problems within modern software development and take appropriate measures.
- communicate about his/her work and its result in writing

in order that the students should master new ways to develop software systems.

Course contents

The course presents basic software engineering concepts and discusses how they are applied within modern software development. It explains current problems within the traditional software engineering and presents how they have been handled with modern methods. While going through the development cycle, the course will in parallel present different modern methods such as iterative development, pair programming, refactoring, test first programming, release planning, retrospective, and show how they are combined. Finally, the course presents future methodological trends.

The course is integrated with two other project courses that together cover theory and practice of modern development methods. In this course students will get acquainted with the theory while in the project courses the student will practice the modern methods.

Examination

- OVN1 - Exercises, 1.5 credits, grading scale: P, F
- RAP1 - Report, 4.5 credits, grading scale: P, 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.

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.