



# 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 2015

## 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

The general aim of the entire course is that the students should master new ways of developing software systems. This aim is realised through the following goal:

- To be able to describe the software development process and its components.
- To apply knowledge in modern software development in order to be able to create a software system.
- To explain the interplay between different software development activities within an organisation.
- To be able to independently and creatively handle issues and analyse different methodological solutions from a holistic perspective.
- To critically and systematically use knowledge to evaluate and improve modern software engineering methods.
- To handle different problems within modern software development and take appropriate measures.
- To demonstrate ability to communicate own work and its results both orally and in writing.

## 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.

## Course literature

Kajko-Mattsson, M., Modern Ways of Developing Software Systems, Compendium, KTH, 2015.

## 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.