



IV2032 Requirements Engineering 7.5 credits

Kravhantering

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

Establishment

Course syllabus for IV2032 valid from Spring 2009

Grading scale

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

Education cycle

Second cycle

Main field of study

Specific prerequisites

Language of instruction

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

Intended learning outcomes

Requirements engineering (RE) plays a fundamental role within the systems development process. The goal of this course is to bring in the concepts, methods and techniques needed in the eliciting, analyzing, documenting, validating, and managing requirements for complex information systems. It explains how requirements engineering fits into a broader systems development process, and provides an understanding of the main challenges in requirements engineering nowadays.

The students will learn how to:

- Identify stakeholders and their influence on the system requirements.
- Specify functional requirements using different modeling methods.
- Identify and classify non-functional requirements, influences and constraints.
- Negotiate and prioritize requirements.
- Validate requirements.
- Document and trace requirements using computer-based tools.
- Manage changing requirements and establish traceability of changes.
- Practice the different roles in the requirement engineering process, by working in groups.
- Analyze the practical use of the latest scientific contributions within the RE subject.

Course contents

Since requirements management is a multidisciplinary field and closely related to areas such as general management, project and product management, product marketing, and industrial design, students from a variety of disciplines can benefit from this course.

The following subjects will be handled during the course:

- Roles and actors in the requirement engineering process.
- Classification of requirements.
- Contemporary methods for collecting and analyzing stakeholder requirements.
- Techniques for validation of quality of collected requirements.
- Computer-based tools for documenting and managing requirements.
- Techniques for linking requirements to design models and vice-versa.

Disposition

Lectures, lessons and project work.

Course literature

Preliminary:

Gerald Kontonya and Ian Sommerville: Requirements Engineering: Processes and Techniques, John Wiley & Sons, 2002, 0471972088

Course outline, lecture slides, reading articles

Examination

- PRO1 - Project, 3.5 credits, grading scale: P, F

- TEN1 - Examination, 4.0 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.

The course is examined through a project and a written exam.

The written exam concerns the grades F, Fx, E, D, C, B, and A, and for the project P or F are applied.

For the course as a whole, the final grade is based on the grade of the exam. The student needs also to pass the project.

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.