



# ID2007 Processes for IT Production 7.5 credits

## Processer för IT-produktion

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 ID2007 valid from Autumn 2008

## 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

After having accomplished the course, the student should be able to

- choose appropriate method in different phases of system development
- choose the right method for measuring processes, products and resources
- explain differences between dependable and non-dependable systems
- manage software projects
- design or choose the right software system architecture
- identify and motivate different validation and verification methods
- assess legacy systems and make decisions on their management
- motivate the importance of software configuration management
- follow and act according to the software engineering ethical rules during development

# Course contents

<>The course deals with the following topics:

- <>- the subject of software engineering.
- the subject of information systems engineering
- the concept of socio-technical systems
- software processes and process models
- system- and software requirements
- requirements engineering process
- system models
- formal specification
- architectural design
- distributed systems architectures
- object-oriented design
- real-time software design
- rapid software development
- design with reuse
- software reuse
- component-based software engineering
- verification and validation
- software testing
- dependability
- critical systems specification, development, and validation
- software project management
- managing people
- software cost estimation
- quality management
- process improvement
- legacy systems

- software evolution and maintenance
- configuration management

## Disposition

- lectures
- seminars. The number of seminars will depend on the number of students. However, each student is obliged to be present at only one seminar.

## Course literature

Software Engineering, Ian Sommerville

Upplaga: 8 Förlag: Pearson-Addison Wesley År: 2006

ISBN: 0-321-31379-8

Övrig litteratur

Articles

## Examination

- INL1 - 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.

- written exam, 4,5 credit points, grading scale: A/B/C/D/E/Fx/F
- assignment, 3 credit points, grading scale: pass/fail (P/F)

## Other requirements for final grade

To pass the course, the student needs to pass on both the written exam and the assignment. Course grade is based on the grade on the written exam.

## 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.