



# ID2201 Distributed Systems, Basic Course 7.5 credits

Distribuerade system, grundkurs

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 ID2201 valid from Autumn 2011

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Computer Science and Engineering, Information Technology

## Specific prerequisites

The course requires good knowledge in computer systems (passed 2G1518 or equivalent courses), operating systems (passed 2G1504 or equivalent courses), and good knowledge in programming.

Proficiency in English corresponding to English B/English 6

# Language of instruction

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

# Intended learning outcomes

The students shall after the course be able to:

- explain important characteristics of distributed systems
- describe architectural and fundamental models of distributed systems
- explain and compare strategies for interprocess communication
- explain and compare middleware models
- explain and compare name services
- explain the concept of logical time
- use logical time to implement distributed algorithms.

# Course contents

The course covers fundamental models for distributed systems, inter process communication and how to handle synchronization, consistency, replication, fault tolerance and security in a distributed system. The course consist of a series of lectures and seminars that include practical assignments. The assignments will be programming tasks that exemplify problem statements examined in the course.

# Course literature

Distributed Systems - Concepts and Design, Georgis Coulouris, Jean Dollimore and Tim Kindberg

Upplaga: fourth edition Förlag: Addison-Wesley År: 2005

ISBN: 0-321-26354-5

# Examination

- LAB1 - Laboratory Work, 1.5 credits, grading scale: P, F
- TEN1 - Examination, 6.0 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.

# Other requirements for final grade

The examination consists of a written examination and practical assignments during seminar sessions. Assignments should be done and presented when scheduled. Final grade is based on the performance of the written exam and the practical assignments.

## 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.