



ID2201 Distributed Systems, Basic Course 7.5 credits

Distribuerade system, grundkurs

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

Establishment

The official course syllabus is valid from autumn term 2021 according to skolchefsbeslut J-2021-0604. Decision date: 15/04/2021

Grading scale

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

Education cycle

Second cycle

Main field of study

Information Technology, Computer Science and Engineering

Specific prerequisites

Knowledge in parallel programming, 7.5 higher education credits, equivalent to completed course ID1212 or ID1019.

Active participation in a course offering where the final examination is not yet reported in LADOK is considered equivalent to completion of the course.

Registering for a course is counted as active participation.

The term 'final examination' encompasses both the regular examination and the first re-examination.

Language of instruction

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

Intended learning outcomes

After the course, students should be able to:

- explain important properties of distributed systems
- describe architecture and logical model of a distributed system
- explain and compare strategies for interprocess communication
- explain and compare models for so-called “middleware”
- explain and compare naming services
- explain the concept of logical time
- use logical time to implement distributed algorithms.

Course contents

The course covers basic models for distributed systems, interprocess communication and how one handles synchronisation, consistency, replication, fault tolerance and safety in a distributed system. The course consists of a series of lectures and seminars that include practical assignments. Programming assignments illustrate problems in the course.

Examination

- TEN1 - Examination, 6.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 1.5 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.

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

Other requirements for final grade

The examination consists of a written examination and practical assignments at seminar sessions. Assignments should be carried out and be presented, when they are timetabled. The final grade is based on the written examination 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.