HI1031 Distributed Information Systems 7.5 credits

Distribuerade informationssystem

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 HI1031 valid from Autumn 2015

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Good knowledge in object-oriented programming and user interface programming with Java, for example equivalent course HI1027 Object-Oriented Programming in Java.

Language of instruction

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

Intended learning outcomes

The aim of the course is to provide knowledge to be able to develop systems that communicate between several different computers. Examples of this can be Business Critical Systems for Internet.

On completion of the course, the students should:

- Build, structure and program distributed systems with a multilayer architecture

- Describe and explain theories and expressions that are used within Business Critical Systems and in distributed systems

- Describe how one develops simple systems with embedded communication in various ways

- Be able to create web-based solutions

- Be versed in and describe safety aspects around distributed applications

- Be able to analyse critically, discuss and compare different distributed methods and models

Course contents

- • Distributed objects (RMI, CORBA) • Message Systems (JMS) • Enterprise frameworks (J2EE, . net) • Web-based systems and programming of thin clients • Webservices • Architecture and design of distributed systems • Three-tier architecture • transactions • Concurrency • security • Examples of application of mathematical methods for distributed systems • Orientation in current research and to find scientific sources in the area

Course literature

Kurskompendium

Examination

- LABA - Lab Work, 4.5 credits, grading scale: A, B, C, D, E, FX, F
- RED1 - Examination and Assignments, 3.0 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.

Written examination (RED1; 3 credits), the grading scale A-F Passed laboratory sessions (LABA; 4.5 credits), the grading scale A-F.

Final school grades are based on all components. The grading scale A-F

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.