HI1000 Data Communications and Networks 7.5 credits

Datakommunikation och nätverk

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

Establishment

Grading scale

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

Education cycle

First cycle

Main field of study

Electrical Engineering, Technology

Specific prerequisites

Elementary computer programming skills

Language of instruction

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

Intended learning outcomes

Course contents

- Basic definitions within data communication, standards and the ISO-model
- Orientation about physical layers: Media for transmission, signals, carriers, modems
- Data link protocols: Functions (addressing, fault detection/ -control, flow control), examples of protocols
- Local net works: Ethernet and orientation about Token Ring, net components
- Net work layers: Switching, Internet protocols (IP), ISDN, net components, orientation about circuit- and packet switching net works
- Transmission layer: Functions (addressing, fault detection/ -control, flow control), the protocols Transmission Control Protocol (TCP) and User Datagram Protocol (UDP)
- Application layer: Application protocols, client-server- applications (email and www), orientation about data security

Course literature

Contact the department for further information

Examination

- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 3.0 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

Passed written exam (TEN1; 4,5 cr.), credit rate A-F
Passed lab work (LAB1; 3 cr.), credit rate P/F
In total credit rate 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.