



EP2920 Communication Networks II 7.5 credits

Kommunikationsnät II

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

Establishment

Course syllabus for EP2920 valid from Autumn 2007

Grading scale

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

Education cycle

Second cycle

Main field of study

Electrical Engineering

Specific prerequisites

Language of instruction

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

Intended learning outcomes

The course aims at giving thorough knowledge about the network, transport and applications layers of the TCP/IP protocol suite. After completing the course the participants should

- be able to design IP addressing including subnetting and supernetting theoretically and in lab assignments,
- be able to explain the principles for interior, exterior and multicast routing,
- be able to explain the differences between IP version 4 and IP version 6,
- be able to solve problems related to the TCP transport protocol regarding flow control and error control,
- be able to explain the differences between different transport protocols (TCP, UDP and SCTP) with respect to performance requirements from applications,
- be able to explain requirements from real-time multimedia communications on communication networks and protocols,
- be able to explain how dynamic configuration of IP addresses works,
- know the basics of Internet network management,
- have a brief knowledge about Internet application protocols,
- be able to perform client-server programming assignment using sockets.

Course contents

- The Internet protocol version 4 and version 6
- Transport protocols (TCP, UDP and SCTP)
- Multicast
- Dynamic configuration of IP addresses
- The domain name system (DNS)
- Application protocols
- Multimedia and real-time applications
- Network management
- Sockets and network programming

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, 4.5p), grades A-F

Passed lab assignments

(LAB1 3p), grades pass or fail

Total grades 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.