



Course syllabus

Faculty of Technology
Department of Computer Science

1DV702 Datornät - administration, 7,5 högskolepoäng
Computer Networks - administration, 7.5 credits

Main field of study

Computer Science

Subject Group

Informatics/Computer and Systems Sciences

Level of classification

First Level

Progression

G1F

Date of Ratification

Approved by Faculty of Technology 2015-05-22
The course syllabus is valid from spring semester 2016

Prerequisites

30 credits in computer science, including Problem Solving and Programming (1DV506), 7.5 credits and Computer Networks - an introduction (1DV701), 7.5 credits or equivalent.

Objectives

After the course the student should:

- have a deep understanding of the techniques used when building local networks
- have acquired solid knowledge about common network equipment, its properties and how it is used in models and real computer networks
- be able to analyze needs, formulate requirements and implement smaller complex networks
- know how to troubleshoot networks and handle detected problems in a structured manner
- have acquired basic knowledge about network operations and surveillance
- be able to use tools for network surveillance.

Content

This is a very practical course that aims to give a good understanding and hands-on knowledge on how to work with computer networks; how to plan, operate and maintain them.

The course covers:

- network planning
- network equipment (hub, switch, router)

- TCP/IP, IP nets, IP subnets, VLAN
- protocol analysis
- routers (remote and local), function and configuration
- network administration (SNMP, RMON).

Type of Instruction

Teaching consists of lectures, seminars and practical assignments. Practical assignments are individual or carried out in groups. Attendance at some activities is mandatory.

Examination

The course is assessed with the grades A, B, C, D, E, Fx or F.

The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).

Assessment of the student's performance is made through written examination and/or assignments which are presented orally and/or in written form. The assessment method is decided at the start of the course.

Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

Credit Overlap

This course cannot be part of a degree in combination with another course in which the content fully or partly correspond to the content of this course: 1DV202 Computer Networks - administration, 7.5 credits

Other

Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

Required Reading and Additional Study Material

Required reading

McCabe J, *Network Analysis, Architecture and Design* 3 ed. Morgan Kaufmann, 2007, Pages 496 (496).

DFM, *Distributed material*. Pages 100 (100).