Linnæus University

Course syllabus

Faculty Board of Science and Engineering
School of Computer Science, Physics and Mathematics

1DV202 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 Organisational Committee 2009-09-08

The course syllabus is valid from spring semester 2010

Prerequisites
At least one semester of university studies (equal to 30 higher education credits) in computer science, including a basic course in Programming (1DV006) and a course in Computer Networks (1DV201), or equivalent.

Expected learning outcomes
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 under-standing 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 Fail (U), Pass (G) or Pass with Distinction (VG).

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.

On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

Course Evaluation

A written course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The course evaluation will be filed at the department.

Required Reading and Additional Study Material

Required reading

Mikalsen, A., Borgesen, P, *Local Area Network Management, Design and Security: A Practical Approach*, John Wiley & Sons Ltd, (2002)
Pages 300 (444).
MSI, *Distributed material*. Pages 100 (100).