

SYLLABUS

Network oriented programming 7.5 credits D0036D

Nätverksprogrammering

Course syllabus admitted: Autumn 2012 Sp 1 - Present

**DECISION DATE
2012-03-14**

Network oriented programming 7.5 credits D0036D

Nätverksprogrammering

First cycle, D0036D

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Datorkommunikation	Computer Technology

Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language

Selection

The selection is based on 1-165 credits.

Examiner

Robert Brännström

Course Aim

After the course, the student

1. has knowledge about a) the scientific foundation for network programming and b) the proven experience programmers in this field of Computer Science;
2. has the capacity for carrying out teamwork and collaboration with various constellations, both in groups where the students choose whom to work with and in groups put together by others;
3. can create, analyse and critically evaluate various technical solutions in terms of the design and implementation of communicating computer programs by using a modern object-oriented programming language;
4. can plan and use appropriate methods to undertake advanced programming tasks within predetermined parameters.

Contents

The course covers network communication and discusses basic structures and functionalities for development of networking applications. In addition, the course introduces communication models like TCP/IP and its support protocols, client-server, peer-to-peer, VPN and NAT. The course also establishes knowledge for programming of parallel events with threads, timers, counters. Network security and Network packet sniffers.

Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

Lectures and laboratory work carried out in a computer lab, mostly individual tasks but group tasks may occur.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided.

Examination consists of a final written exam and mandatory programming assignments during the course:

1. Final written exam. Individual lab assignments;
2. Lab assignments carried out in groups;
3. Final written exam. Individual lab assignments;
4. Lab assignments.

Literature. Valid from Autumn 2010 Sp 1

Course offered by

Department of Computer Science, Electrical and Space Engineering

Items/credits

Number	Type	Credits	Grade
0001	Written exam	3	G U 3 4 5
0002	Laboratory work	4.5	U G#

Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

Last revised

by Jonny Johansson, HUL SRT 2012-03-14

Syllabus established

by LTU Skellefteå 2007-02-28