



DD2495 Network Security 6.0

credits

Nätverkssäkerhet

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

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for DD2495 valid from Autumn 2009

Grading scale

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

Education cycle

Second cycle

Main field of study

Language of instruction

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

Intended learning outcomes

The course teaches how to get a secure computer network. Both threats and countermeasures will be considered. The course is a continuation of the course in computer security and gives

a working knowledge of central security mechanisms both on network level and application level.

After the course the student is expected to:

- know how to use the established terminology and how to describe technical and practical problems in the network security area,
- know about the most common types of attacks against networks and know how to apply countermeasures,
- understand the structure of security protocols and know how to work with modifications of them,
- have the ability to analyse and evaluate networks with regard to security aspects,
- be ready to participate in investigations and development work in network security.

Course contents

The course is about technical network security. Different aspects we consider are authentication problems, email security, IP-security, Web-security, firewalls, different types of attacks, how to protect routers and infrastructures. The knowledge of these areas will be useful in securing a network against intruders.

Specific prerequisites

Single course students: 90 university credits including 45 university credits in Mathematics or Information Technology. Swedish B or equivalent and English B or equivalent.

Course literature

To be announced at least 4 weeks before course start at course web page.

Examination

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

In this course all the regulations of the code of honor at the School of Computer science and Communication apply, see: http://www.kth.se/csc/student/heder-skodex/1.17237?l=en_UK.

Other requirements for final grade

Examination (TEN1; 3 university credits)

Laboratory assignments (LAB1; 3 university credits)

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.