



Course syllabus

Faculty of Technology

Department of Computer Science and Media Technology

2DV703 Mobil och trådlös säkerhet, 7,5 högskolepoäng

Mobile and Wireless Data Security, 7.5 credits

Main field of study

Computer Science

Subject Group

Informatics/Computer and Systems Sciences

Level of classification

First Level

Progression

G2F

Date of Ratification

Approved by Faculty of Technology 2014-10-03

The course syllabus is valid from autumn semester 2015

Prerequisites

60 credits in Computer Science, including Internet Security 7.5 credits(2DV702), and Computer Network - introduction 7.5 credits (1DV701) or the equivalent.

Objectives

After the course the student should be able to:

- give a detailed explanation about standards and common solutions in the area of mobile and wireless security
- individually and in group analyze security threats and select and implement suitable countermeasures
- evaluate various threats in terms of risk, cost and other consequences such as down time and badwill
- relate to and make balanced ethical decisions between security, privacy, hacking and surveillance.
- be able to describe the development of wireless and mobile security in the foreseeable future

Content

The course will give the student both theoretical and practical knowledge about techniques and equipment used within mobile and wireless security. Mobile devices may be laptops, palmtops or smart phones. Wireless networks may be local wireless networks (WLAN) or personal wireless networks (PAN)

The course comprises:

- system architecture and design of wireless networks
- system administration of wireless networks
- various wireless standards
- authentication in wireless and mobile systems
- virtual private networks
- security in mobile devices: login and encryption
- digital certificates

Type of Instruction

Lectures, seminars and practical work. Practical work is carried out in groups. Attendance at some activities will be 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 and oral tests and presentation of compulsory practical assignments. The types of assessment used in the course will be decided at the beginning of the course.

Students who have failed will be offered a new examination shortly after the regular test.

Course Evaluation

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

Credit Overlap

The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course: 2DV203 Mobile and Wireless Data Security, 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

DFM, *Distributed material*. Pages 200.

Other literature is selected in consultation with the examiner