



## Course syllabus

Faculty of Technology

Department of Computer Science and Media Technology

1DV700 Datorsäkerhet, 7,5 högskolepoäng

Computer Security, 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

At least 15 credits in Computer Science, including Problem Solving and Programming (1DV506), 7.5 credits or equivalent.

## Objectives

Upon completion of the course the student should be able to:

- describe the IT Security landscape and the different subfields within IT Security
- understand and use basic security mechanisms, e.g. cryptography
- conduct a security analysis of an organization
- describe the main threats against computer security and the methods available to thwart them
- evaluate and relate to problems of ethical and moral nature related to computer crime, surveillance and privacy.

## Content

The course is an introductory course in IT Security. It should give basic understanding of threats and opportunities in the area and knowledge about tools available used to manage security. The main emphasis of the course is within Computer Security.

The following parts are treated:

- IT and society's vulnerability
- Information Security
- Ethics and IT law
- Vulnerability analysis
- Cryptography
- Program Security

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- Security in Operating Systems and Databases.

## Type of Instruction

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

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: 1DV200 Computer 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

Pfleeger C, Pfleeger S, Margulies J, *Security in Computing* 5 ed. Prentice Hall, 2015. Pages 760 (944).

DFM, *Distributed material*. Pages 100.