Linnæus University

Jnr: 2015/1632-3.1.2

Course syllabus

Faculty of Technology
Department of Computer Science

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
- 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
This course cannot be part of a degree in combination with another course in which the content fully or partly correspond 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.