Linnæus University

Course syllabus

Faculty of Technology
Department of Computer Science

2DV702 Internetsäkerhet, 7,5 högskolepoäng
Internet 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
Problem Solving and Programming 7.5 hec (1DV506) and Computer Networks –
Introduction 7.5 hec (1DV701) or the equivalent.

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

- describe the IT security landscape, especially network security
- understand and use basic security mechanisms, e.g. cryptography
- describe the main threats against network security and the methods available to
  thwart them
- identify intrusion attacks in computer systems and know how to prevent this type
  of security threat
- understand how hackers work and be acquainted with the tools they use

Content
This is a course in data security with a special emphasis on network security. The idea
is to give a good coverage of threats against computers on a network and the tools to
thwart them.
The following parts are treated:

- encryption and coding techniques
- authentication standards and applications
- electronic mail security
- IP Security
- Web Security

- network management security
- intruders and hackers
- malicious software
- firewalls

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 students 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.

Students who do not pass the regular examination are given the opportunity to do a resit examination shortly after the regular examination.

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

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: 1DV203 Network 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
Stallings, W, *Network Security Essentials: Applications and Standards, 3/E*, Prentice Hall, (2007). Pages 432 (432).
DFM, *Distributed material*. Pages 100.