

SYLLABUS

Computer System Security and Management 7.5 credits D0004E

Datorsäkerhet och drift

Course syllabus admitted: Autumn 2012 Sp 1 - Autumn 2014 Sp 2

**DECISION DATE
2012-03-13**

Computer System Security and Management 7.5 credits D0004E

Datorsäkerhet och drift

First cycle, D0004E

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Datorkommunikation	Computer Technology

Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and Courses of at least 60 credits at first cycle including the following knowledge/courses: Good knowledge of imperative programming (D0009E) and computer communications (D0002E). Basic UNIX knowledge.

Alternative:

Alternative to completed courses can be corresponding knowledge acquired through work within the IT-sector.

Selection

The selection is based on 1-165 credits.

Examiner

Jingsen Chen

Course Aim

After completing the course the student should be able to

- demonstrate knowledge of proven experiences and principles of security within computer systems and computer communication
- demonstrate abilities (based on limited information) to critically, independently, and creatively identify, formulate, and handle security vulnerabilities
- demonstrate abilities to apply and critically evaluate different strategies and techniques used in computer and communication securities
- demonstrate abilities to perform basic security risk analyses, with respect to security policy and analyze implications on users and protected assets
- demonstrate abilities to plan and execute basics tasks of installing an operating system and maintaining its integrity and security
- show practical skills in independently solving system administration problems and performing common system administration tasks
- demonstrate abilities to judge scientific, societal and ethical aspects of system administration and security

Contents

- Operating system
- System security
- Common security weaknesses
- Data integrity
- Data security
- System recovery
- Basic network security
- Practical application of system management and security methods

Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

Teaching will consists of lectures and group work.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. Written examination and compulsory laboratory work with differentiated grades.

Remarks

This course can not be combined with SMD083 or SMD124.

Overlap

The course D0004E is equal to IED445, IED303, SMD139, A7008N, IED409

Literature. Valid from Autumn 2011 Sp 1

Computer Security by Dieter Gollmann. ISBN: 9780470741153. Publisher: John Wiley And Sons Ltd .Pages: 456

Additional recommended reading: Unix and Linux System Administration Handbook 4th Edition by Evi Nemeth, Garth Snyder, Trent R Hein, Ben Whaley , ISBN: 9780131480056. Publisher: PRENTICE-HALL.Pages: 1279

Course offered by

Department of Computer Science, Electrical and Space Engineering

Items/credits

Number	Type	Credits	Grade
0002	Laboratory work	4.5	G U 3 4 5
0003	Written exam	3	G U 3 4 5

Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

Last revised

by Jonny Johansson, HUL SRT 2012-03-13

Syllabus established

by the Department of Computer Science and Electrical Engineering 2007-02-28