

Course syllabus

En Introduktion till Informationssäkerhet An Introduction to Information Security

SASC01, 7,5 credits, G1 (First Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED C/D

Date of Decision: 2023-04-18

General Information

Depth of study relative to the degree requirements: First cycle, has only upper-secondary level entry requirements.

Language of instruction: The course will be given in English

Aim

The course aims to provide a conceptual as well as a technical introduction to computer, Internet and web security.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

- be able to understand design decisions related to information security
- be able to understand basic security principles on the Internet
- be able to understand how security can be broken and bypassed
- be able to understand common ways of protecting computers and systems against attacks

Competences and skills

For a passing grade the student must

- be able to discuss security aspects in an informed way

- be able to distinguish different security measures and explain where and why they are used
- be able to analyze the impact and consequences of using specific security features and solutions

Judgement and approach

For a passing grade the student must

- be able to propose, prioritize and apply best practices when designing and using techniques that are security critical and relevant
- understand possibilities and limitations of security and to which extent information security can be achieved on the Internet

Contents

The course will give an overview of a wide range of topics and will also provide details of some topics. Topics included in the course are security terminology, cryptography, digital certificates, email security, DNS architecture and security, web session security, web application security, remote and local authentication, Internet anonymity, operating system security, Transport Layer Security (TLS) and organizational aspects.

Examination details

Grading scale: UV - (U,G,VG) - (Fail, Pass, Pass with Distinction)

Assessment: Home assignments and project will give a passing grade (G). An additional written assignment can give the higher grade (VG).

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Admission

Admission requirements:

- Basic eligibility (exemption regarding Swedish may be given to Exchange students)

The number of participants is limited to: No

Reading list

- Lecture slides, lecture notes and online resources.

Contact and other information

Course coordinator: Paul Stankowski Wagner, paul.stankowski_wagner@eit.lth.se

Course homepage: <http://www.eit.lth.se/course/sasc01>