



HÖGSKOLAN I GÄVLE

Information and Communication Technology Security 7.5 cr

Datakommunikation och IT-säkerhet 7,5 hp

Set by Faculty of Engineering and Sustainable Development

Version

Set at

Valid from

12/9/15

HT2016

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|----------------------------|---------------------|
| Level | G1F |
| Education level | First cycle |
| Course identifier | DVG324 |
| Credits | 7.5 cr |
| Main field of study | Computer Science |
| Subject group | Computer Technology |
| Disciplinary domain | Technology 100.0 % |

Learning outcomes

After completion of the course, the student shall be able to:

1. use current terminology in the area of data communication and IT security to describe security targets, threats against security and security principles
2. explain causes and relationships in different security issues in a broad perspective
3. apply theoretical knowledge of data communication and IT security in practical exercises.

Course content

Definition of security targets, threat scenarios, resource protection, security controls and security principles
Encryption methods, security in development and maintenance of software, security standards
Familiar attacks, such as data viruses, trojans, spam, phishing
Communication security in computer networks, firewalls
Security management, the basics of risk analysis
Computer ethics, computer crime, computer law

Teaching

Lectures, laboratory sessions and seminars

Prerequisites

Computer Sciences 30 cr including Computer Systems 7,5 cr and Introduction to Data Communication 7,5 cr or equivalent.

Examination

Written examination, written assignments and laboratory sessions.

Grade A, B, C, D, E, Fx, F

Other regulations Grading criteria are provided by the course coordinator or examiner at the beginning of the course.

Sustainable environment A minor part of the course content deals with sustainable development.

Module

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| 0010 | Written examination | 4.5 cr | Grade: AF |
| 0020 | Assignment and laboratory work | 3 cr | Grade: UG |