



Faculty of Economic Sciences, Communication and IT  
Computer Science

## Syllabus

### Course Approval

The syllabus was approved by the Faculty Board of Economic Sciences, Communication and IT on 14 March 2008, and is valid from the Spring semester of at Karlstad University.

**Course Code:** DVAD03

**Topics in Computer Security, 7.5 ECTS Credits**

**(Topics in Computer Security, 7.5 Swedish credit points)**

**Degree Level:** Master

**Progressive Specialisation:** A1N (Second cycle, has only first-cycle course/s as entry requirements)

### Language of Instruction

English

### Prerequisites

Network Security or equivalent. Upper Secondary English B or equivalent

### Major Field of Study

DVA (Computer Science)

### Learning Outcomes

Having successfully completed this course, a student will be able to

- explain advanced technical concepts and key issues in the areas of network security, computer forensics, and/or privacy-enhancing technologies, and
- critically compare the strengths and weaknesses of different security solutions in the above mentioned areas.
- read the current literature at the level of journal papers in this area, and
- and communicate knowledge of this area both orally and in writing.

This course should prepare students for starting a thesis or dissertation in this area.

### Content and Form of Instruction

The course will provide an introduction to security research-related literature in areas such as network security, computer forensics and/or privacy-enhancing technologies. The selection of research areas can vary each time the course is given. After some introductory lectures by the course responsible as well as by invited guest lecturers, the students are expected to perform individual literature studies on IT security topics of their interest that are subject of the course, and to report on their studies in an oral presentation and a written report.

### Reading List

See separate document.

### Examination

The examination consists of two parts:

- 1) Quizzes associated with the lectures. If a student attends less than 80 % of the lectures, he/she will also have to undergo an extra oral examination.
- 2) An assigned paper/student project requiring roughly 100 h of work by each student. It consists of
  - Written report
  - Oral presentation

Students who do not pass can submit a revised version of their report (or a completely new report) which will be evaluated.

#### Grades

One of the grades Great Distinction (5), Distinction (4), Pass (3) or Fail (U) is awarded in the examination of the course. In order to get the grade Great Distinction, students need to write a very good paper, i.e. it should be either a very good review or present a new idea as well as give a very good oral presentation.

#### Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course assessment is based on student views and experiences as reported in written course evaluations and/or group discussions. Students will be informed of the result of the evaluation and of the measures to be taken.

#### Course Certificate

A course certificate will be provided upon request.

#### Additional Information

Students who enrolled before 1 July 2007 will complete their studies in accordance with the requirements of the earlier admission. Upon completion students may request degree and course certificates to be issued under the current ordinance if they meet its requirements.

The local regulations for studies at the Bachelor's and Master's levels at Karlstad University stipulate the obligations and rights of students and staff.

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