



## COURSE SYLLABUS

# Information Security, 7.5 credits

*Informationssäkerhet, 7,5 högskolepoäng*

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<b>Course Code:</b> TIAN19	<b>Education Cycle:</b> First-cycle level
<b>Confirmed by:</b> Dean Jun 1, 2019	<b>Disciplinary domain:</b> Technology
<b>Revised by:</b> Director of Education Aug 15, 2019	<b>Subject group:</b> TE9
<b>Valid From:</b> Aug 1, 2019	<b>Specialised in:</b> G2F
<b>Version:</b> 2	<b>Main field of study:</b> Informatics

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### Intended Learning Outcomes (ILO)

After a successful course, the student shall

Knowledge and understanding

- display knowledge of basic concepts, principles, laws, models, and standards within the area of information security
- display knowledge of recent cases of data breaches and/or information leakage, and show an understanding of the underlying reasons
- display knowledge of how information security is practiced in an organization
- display knowledge of technical and administrative security mechanisms

Skills and abilities

- demonstrate the ability to search for and present relevant research results related to current events and/or trends within the field of information security

Judgement and approach

- demonstrate the ability to analyze and reflect over current events and/or trends within the area of information security
- demonstrate the ability to reflect over how vulnerabilities in information systems affect organizations and society

### Contents

In today's society, there are high requirements for information security. The course aims at giving an overview of the information security domain by introducing basic concepts, principles, models, and standards. The course also includes human factors in the security process and the human's role in the information security domain. The field is interdisciplinary with connections to other fields such as, e.g., law, and ethics which is also included in the course.

The course includes the following elements:

- Basic concepts within information security
- Authentication methods

- Malware and malicious software
- Operating systems security
- Network security
- Information security management
- Physical security
- Current events and trends within information security

### **Type of instruction**

Instruction consists of lectures and seminars.

The teaching is conducted in English.

### **Prerequisites**

General entry requirements and completed 60 credits in first-cycle courses in computer engineering or informatics (or the equivalent).

### **Examination and grades**

The course is graded 5,4,3 or Fail.

The final grade for the course is based on a balanced set of assessments.

Registration of examination:

Name of the Test	Value	Grading
Examination <sup>1</sup>	5 credits	5/4/3/U
Seminars	2.5 credits	U/G

<sup>1</sup> Determines the final grade of the course, which is issued only when all course units have been passed.

### **Course literature**

The literature list for the course will be provided one month before the course starts.

Title: Security in Computing, 5th Edition (2015)

Author: Charles P. Pfleeger, Shari Lawrence Pfleeger, Jonathan Margulies

Publisher: Prentice Hall

ISBN: 978-0-13-408504-3, 978-0-13-408505-0 (e-book)