DD2303 The Cybersecurity Engineer's Role in Society 2.0 credits

Cybersäkerhetsingenjörens roll i samhället

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

This official course syllabus is valid from the autumn semester 2023 in accordance with decision by the head of school: J-2022-2303. Date of decision: 19/10/2022

Grading scale

P, F

Education cycle

Second cycle

Main field of study

Computer Science and Engineering

Specific prerequisites

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course, the student shall be able to

- analyse and discuss how the use and development of digital systems and in particular the security of these systems affect and are affected by social, economic, environmental, work environmental and ethical sustainability as well as diversity, gender equality and equal conditions

- review critically and reflect on both the set-up and implementation of the education as well as their own study situation, their skills in relation to the objective of the education and the future professional role and their ability to identify their own need of additional knowledge

- plan and carry out assignments within given time frames and using available resources

- write short, clear and arguing texts based on own analysis as well as given material.

in order to

- be able to communicate and explain risks and benefits with security (and deficiency thereof) in digital systems in society for individuals without expertise in cybersecurity

- understand external consequences of their own conduct related to security (and deficiency thereof) in digital systems and thereby act responsibly

- obtain the most of the education and the working life in a long-term perspective,

- influence the development of the programme.

Course contents

The course extends over two years, i.e., eight periods. Each period has a topic work that includes different subjects that all students work with at the same time. The work consists of study material and/or lectures around an issue. It is reported in the form of a written assignment and/or oral reporting and/or active seminar participation. Subjects that are treated are for example:

- gender equality, diversity and equal conditions

- sustainability

- ethical dilemmas (for example offensive security, the balance between personal integrity and supervision and how identified vulnerabilities should be communicated with the surrounding world)

- working life

- reflection over the studies.

Examination

- UPP1 - Oral and written assignments, 1.0 credits, grading scale: P, F

- UPP2 - Oral and written assignments, 1.0 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

Active participation in all compulsory activities and passed home assignments.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.