EP2520 Building Networked Systems Security 7.5 credits

Bygga säkra nätverkssystem

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

The official course syllabus is valid from the spring semester 2025 in accordance with the decision from the director of first and second cycle education: J-2024-2207. Date of decision: 2024-10-16.

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Computer Science and Engineering,Electrical Engineering

Specific prerequisites

Knowledge of operating systems, 6 credits, corresponding to completed course ID1200/ID1206

or

knowledge of computer networks, 6 credits, equivalent to completed course EP1100/IK1203/IK2218/EP2120

or

knowledge of cyber security, 6 credits, equivalent to completed course IV1013/IK2206/DD2395/DD2391

or

knowledge of secure network systems, 2.5 credits, corresponding to completed course EP2500 or completed part INL1 in EP2500.

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 should be able to

- implement networked systems security solutions with specific security requirements and system constraints
- implement, analyse and evaluate security mechanisms with regard to the level on the security they provide and the overhead costs for the system

in order to polish the ability to handle open issues and real engineering problems and prepare for a degree project in related subjects.

Course contents

The course trains students to handle contemporary security problems for networked systems. Through problem-based learning and team-work, students tackle modern technical challenges for cybersecurity. Students investigate requirements, design specifications, prepare solutions with professional tools and critically assess the efficiency of alternative solutions.

Examination

- PRO1 - Project, 7.5 credits, grading scale: A, B, C, D, E, FX, 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.

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.