UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Cybersecurity Operations G1F

7.5 credits

Course code: IT422G
Version number: 2
Valid from: 1 July 2025
Ratified by: Curriculum Committee for Informatics
Date of ratification: 14 November 2024

1. General information about the course

The course is provided by the University of Skövde and is named Cybersecurity Operations G1F (Cyberoperationer G1F). It comprises 7.5 credits and is a first-cycle course. The level of progression is G1F.

The course is a part of the main field of study in Informatics. The disciplinary domain of the course is Technology.

2. Entry requirements

General entry requirements.

The prerequisites are at least 30 credits in finished courses in the subject area Informatics.

3. Course content

The course is divided into a theoretical and a practical part.

The theoretical part aims to provide the student with deeper knowledge about the methods and tools that are common in offensive and defensive cybersecurity operations.

The practical part aims to give the student the opportunity to apply achieved knowledge in offensive and defensive cybersecurity operations, such as securing a system and detecting malicious network traffic.

During a seminar, the student will present and discuss current research directions in the field.

4. Objectives

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

- account for central concepts in offensive and defensive cybersecurity operations,
- model cyber security threats,
- identify and analyse vulnerabilities in a system,
- install, operate and maintain tools for testing vulnerabilities in systems and monitor cybersecurity attacks, and
- describe and discuss the current research directions in the field.

5. Examination

The course is graded VG (Pass with distinction), G (Pass) or U (Fail).

The examinations of the course consist of the following modes of assessment:

- **Seminar assignment**
  1 credit, grades: G/U
- **Oral presentation**
  2.5 credits, grades: G/U
- **Unsupervised written examination**[1]
  4 credits, grades: VG/G/U (determines the final grade)

[1] The unsupervised written exam is conducted via the university's learning platform

Students with a permanent disability who have been approved for directed educational support may be offered adapted modes of assessment.

6. Types of instruction and language of instruction

The teaching is comprised of lectures, laboratory sessions and seminars.

The teaching is conducted in English.

7. Course literature and other educational materials

Course literature and other materials will be provided by the course coordinator on the course page on the learning platform.

8. Student influence

Student influence in the course is ensured by means of course evaluation. The students are informed about the results of the evaluation and potential measures that have been taken or are planned, based on the course evaluation.

9. Additional information

Further information about the course, as well as national and local governing documents for higher education, is available on the website of the University of Skövde.