UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Information Security - Network Security G1F

7.5 credits

Course code: IT393G
Version number: 7
Valid from: 1 January 2025
Ratified by: Curriculum Committee for Informatics
Date of ratification: 11 April 2024

1. General information about the course

The course is provided by the University of Skövde and is named Information Security - Network Security G1F (Informationssäkerhet - nätverkssäkerhet 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

The course has the following entry requirements: passed IT356G Data Communication - Routing and Switching G1F (or the equivalent).

3. Course content

The course contains two modules, one theoretical and one practical. The theoretical part provides extended knowledge in the field of network security with emphasis on authentication, authorization, encryption, and implementation of secured networks. The practical part develops specialized security skills that along with critical thinking develops the ability to solve complex problems in network security.

4. Objectives

The student should after completeing the course be able to:

- describe the area of central concepts;
- describe and evaluate network security principles such as authentication, authorization, encryption, and maintenance of secured networks;
- use tools that is related to network security;
- apply advanced techniques for network security; and
- analyze and discuss complex network security vulnerabilities.

5. Examination

The course is graded A (Excellent), B (Very good), C (Good), D (Satisfactory), E (Sufficient) or F (Fail).

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

- **Written examination**
  3 credits, grades: A/B/C/D/E/F (determines the final grade)
- **Laboratory assignment**
  4.5 credits, grades: G/U

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 laboratory sessions and lectures.

The teaching is conducted in English.

7. Course literature and other educational materials

Gregg, M. & Santos, O. (2019). *Certified Ethichal Hacker (CEH) Version 10 Cert Guide* (3rd ed.). Indianapolis: Pearson IT Certification. ISBN 9780789760524.

Northcutt, S., Zeltser, L., Winters, S., Kent, K. & Ritchey, W. R. (2005). *Inside Network Perimeter Security*. Indianapolis: Sams Publishing. ISBN 9780672327377.

Pfleeger, C. P., Pfleeger, S. L. & Margulies, J. (2015). *Security in computing*. Upper Saddle River, NJ: Prentice Hall. ISBN 9780134085043.

Other course material is provided by the course coordinator and lecturers during the course.

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.