UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Virtualization, Cloud and Storage G1F

7.5 credits

Course code: IT421G
Version number: 3
Valid from: 1 July 2022
Ratified by: Curriculum Committee for Informatics
Date of ratification: 10 February 2022

1. General information about the course

The course is provided by the University of Skövde and is named Virtualization, Cloud and Storage G1F (Virtualisering, moln och lagring 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 IT377G Windows Administration I G1F and passed IT387G Linux Administration G1F and passed IT384G Script Programming G1F and attended IT356G Data Communication - Routing and Switching G1F and attended IT390G Operating Systems G1F (or the equivalent).

Since the level of progression of the course is G2F the prerequisites are at least 60 credits in Informatics, where the courses above are included.

3. Course content

This course will combine the three areas of hardware virtualization, cloud computing, and storage. The course is compromised both of theoretical and practical parts. The theoretical parts will cover the areas' historical development and foundations, as well as present selected research topics. In the practical part, students can apply their theoretical knowledge to plan, deploy, and document a system combining all three areas.

4. Objectives

After completed course the student should be able to:

- describe the fundamental concepts in hardware virtualization, cloud and storage,
- describe the development and research topics of this area,
- independently install, configure, and automate systems which make use of virtualization, cloud computing, and storage, and reflect on one's own work, as well as
- document and critically review systems which make use of virtualization, cloud computing, and storage.

5. Examination

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

To achieve a final grade in this course the following must be met:

The final grade is calculated as a weighted arithmetic mean value, where the value is an interpretation of the A-F scale onto a 4-0 scale, i.e. A=4, B=3, C=2, D=1, E=0, and the weighing is equivalent to the credits per course unit. The following formula is used: *floor*((x*3+y*4,5)/7,5 + 0,5).

Example: *Grade A (4) on Written examination (3 credits) and grade B (3) on Laboratory assignment (4.5 credits) give the weighted arithmetic mean value of (4*3+3*4.5)/7.5=3.4, rounded to 3, results in the final grade B.*

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

- **Written assignment**
  3 credits, grades: A/B/C/D/E/F
- **Laboratory assignment**
  4.5 credits, grades: A/B/C/D/E/F

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, lectures and supervision.

The teaching is conducted in English.

7. Course literature and other educational materials

Course literature consists of scientific articles, either provided by the teachers during the course or selected by the students themselves.

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.