UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Object Oriented Programming G1F

7.5 credits

Course code: IT401G
Version number: 7
Valid from: 1 January 2025
Ratified by: Curriculum Committee for Informatics
Date of ratification: 13 June 2024

1. General information about the course

The course is provided by the University of Skövde and is named Object Oriented Programming G1F (Objektorienterad programmering 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 IT120G Programming Fundamentals with C++ G1N or passed IT141G Programming Methodology G1N (or the equivalent).

3. Course content

The course presents basic concepts and terminologies used in object-oriented programming as well as object-oriented design. The course also describes theories and provides skills for object-oriented programming in the Java programming language. Theory and practice are presented in an alternate way through a number of exercises and assignments during the course.

4. Objectives

After completed course the student should be able to:

- describe and explain the basic principles of object-oriented programming,
- describe and explain the advantages and disadvantages of the object-oriented programming paradigm,
- describe, explain and use object-oriented design principles and tools,
- describe and explain the basic principles related to event-based and multi-threaded applications,
- independently formulate and solve programming problems,
- interpret and create object-oriented programs with available class libraries, event-based application constructs and multithreaded designs, using Java programming language, and
- write, present and explain the requirements and solutions to programming problems.

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**
  2.5 credits, grades: G/U
- **Written assignments**
  5 credits, grades: A/B/C/D/E/F (determines the final grade)

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 exercises, supervision and lectures.

The teaching is conducted in English.

7. Course literature and other educational materials

Weisfeld, M. A. (2019). *Object-oriented thought process* (5th ed.). Upper Saddle River, NJ: Addison-Wesley. ISBN 9780135181966.

Additional course literature according to instructions on the page of the course 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.