DD1338 Algorithms and Data Structures 6.0 credits

Algoritmer och datastrukturer

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

The official course syllabus is valid from the autumn semester 2026 as decided by the director of first and second cycle education. Decision date: 2026-04-16

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Knowledge and skills in object-oriented programming, 7 credits, corresponding to completed course DD1337 alternatively both courses DD1310 and DD1380.

Active participation in DD1337 or DD1380 during study period 1 of the same academic year is equated with completed course. Anyone who is registered is expected and considered to be actively participating.

Intended learning outcomes

On completion of the course, course participant should be able to

- solve computational problems by means of programming,
- analyse, choose, use and implement basic algorithms and data structures
- participate in professional programming activities

in order to

- find and use correct algorithms and data structures for a given problem,
- take advanced courses within computer science and numerical analysis.

Course contents

Fundamental data structures: Lists, stacks, queues, priority queues, sets, hash tables, trees and graphs. Fundamental algorithms: Search, sorting, tree algorithms and some other types of algorithms. Introduction to algorithm analysis. The programming language Java is used.

Examination

- HEM1 - Assignment, 6.0 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.

If the course is discontinued, students may request to be examined during the following two academic years.

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.