DD1340 Introduction to Computer Science 18.0 credits

Introduktion till datalogi

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

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

Establishment

Course syllabus for DD1340 valid from Autumn 2009

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After finishing the course the participants should be able to

- use common computing tools and, in particular, the computer environment at D,
- design and implement simple programs,
- use programming to solve problems,
- analyze, choose, select and implement basic algorithms and data structures,
- take part in professional program development and know about the programmers roles and tasks,
- analyze and evaluate social and ethical consequences of computer applications

in order to

- efficiently use computers in their continuing education and working life,
- find and use the correct techniques for a given problem,
- take continuation courses in computer science and numerical analysis.

Course contents

Operating systems and especially Unix, CSC's computer system, the hardware of a computer, text editing, basic HTML and LaTeX.

Programming: Theory and practise in all aspects of elementary programming and program development. Java will be the language of instruction.

Elementary Data Structures: Lists, stacks, queues, heaps, sets, hash tables and trees.

Elementary Algorithms: Including but not limited to searching, sorting, graph and tree algorithms. Introduction to algorithm analysis.

Elementary ethics: Fundamental concepts, computer ethics.

Course literature

To be announced at the web page for the cours at least 4 weeks before the course starts.

Examination

- ETI1 - Exercise, 1.5 credits, grading scale: P, F
- HEM1 - Assignment, 6.0 credits, grading scale: A, B, C, D, E, FX, F
- HEM2 - Assignment, 6.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 1.5 credits, grading scale: P, F
- PRO1 - Project, 3.0 credits, grading scale: P, 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.

In this course all the regulations of the code of honor at the School of Computer science and Communication apply, see: http://www.kth.se/csc/student/hederskodex/1.17237?l=en_UK.

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.