Introduction to Programming 7.5 credits D0009E

Introduktion till programmering

Course syllabus admitted: Autumn 2023 Sp 1 - Present

DECISION DATE
2023-02-15

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Introduction to Programming 7.5 credits D0009E

Introduktion till programmering

First cycle, D0009E

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Datalogi	Computer Technology

Main field of study

Engineering Physics and Electrical Engineering, Computer Science and Engineering

Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language +
Swedish upper secondary school courses Mathematics 3c or Mathematics D.

Selection

The selection is based on final school grades or Swedish Scholastic Aptitude Test.

Course Aim

The student should:

- Demonstrate knowledge of proven experience in design and construction of imperative programs and capacity to plan and carry out advanced tasks in the form of implementation of imperative programs designed to solve specific technical problems.
- Demonstrate the ability to model problems and to identify and formulate solutions in a modern imperative language.
- Demonstrate the ability to critically analyze and evaluate technical solutions in the form of existing programs in imperative languages , as well as predict and evaluate sequences of events in these.

Contents

Introduction to program development and development environments. Variables and program states, choice, iteration, recursion. Arithmetic and logic expressions, strings and text processing. Generalisation, parametrisation and function abstraction. Dynamic data structures, the file concept, standard libraries and error handling. References vs. values, the alias problem. Introduction to objects. Problem solving, program structure and documentation.

Realization

Each course occasion´s language and form is stated and appear on the course page on Luleå University of Technology's website.
Instruction consists of lectures, seminars and laboratory work. Lab assignments will be associated with a deadline.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided.
Written exam and both oral and written presentation of laboratory assignments.
Passing the lab assigments part of the course requires a passed grade on all individual assignments.

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Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term "unauthorized aids" refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

Overlap

The course D0009E is equal to SMD180, D0019N, D0042D, SMD134, SMD170, D0017D, L0002B, D0028E, D0017E

Course offered by

Department of Computer Science, Electrical and Space Engineering

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0002	Laboratory work	U G#	3	Mandatory	A07	
0003	Written exam	G U 3 4 5	4.5	Mandatory	A21	

Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

Last revised

by Robert Brännström 2023-02-15

Syllabus established

by the Department of Computer Science and Electrical Engineering 2007-02-28

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