Imperative Programming

Programme course

6 credits

Imperativ programmering

TDP002

Valid from: 2017 Spring semester

Determined by
Board of Studies for Computer Science
and Media Technology

Date determined
2017-01-25

Main field of study
Programming

Course level
First cycle

Advancement level
G1N

Course offered for
- Programming, Bachelor's Programme

Entry requirements
Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Intended learning outcomes
After the course the student will be able to:
- describe and use the constructs of an imperative programming language
- construct and solve problems using imperative programming
- describe basic concepts in imperative program development

Course content
Craft: Handling a programming language and its tools and documentation. Ability to work with programming constructs and divide programs into modules. Ability to formulate algorithms, read source code and work with testing and debugging.
Topics: Imperativ programming with its constructs, input/output, file handling. Data structures, such as lists, trees, graphs and tables.
Techniques: Python, Emacs, Linux.

Teaching and working methods
The course consists of lectures, labs, dojos and own exercises.
The lectues address the central topics and techniques of the course.
Labs and exercises give the studens a lot of training of the basic components of program development.

Examination

LAB1	Laboratory work	3 credits	U, G
DAT1	Computer examination	3 credits	U, 3, 4, 5

Grades

Four-grade scale, LiU, U, 3, 4, 5

Other information

Supplemetary courses: Objektorienterad programmering

Department

Institutionen för datavetenskap

Director of Studies or equivalent

Ahmed Rezine

Examiner

Klas Arvidsson

Course website and other links

http://www.ida.liu.se/~TDP002

Education components

Preliminary scheduled hours: 62 h
Recommended self-study hours: 98 h

Course literature

Additional literature

Books

Lutz, Mark, (2013) *Learning Python* 5. ed. Sebastopol, Calif. : O'Reilly, 2013
ISBN: 9781449355739

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.