Logic Programming

Programme course

6 credits

Logikprogrammering

TDDD08

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
Information Technology, Computer Science and Engineering, Computer Science

Course level
Second cycle

Advancement level
A1X

Course offered for
- Computer Science and Engineering, M Sc in Engineering
- Information Technology, M Sc in Engineering
- Computer Science and Software Engineering, M Sc in Engineering
- Computer Science, Master's programme
- Mathematics, Master'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.

Prerequisites
Basic courses in discrete mathematics and logic, and a course on basic programming.

Intended learning outcomes
At the end of the course the student should demonstrate a deeper understanding of the basic logical concepts and its relation and application of the programming context. Furthermore, the student should demonstrate skills in logic and constraint programming in the programming language Prolog, and the ability to think and solve problems in a declarative way.

Course content
Logic, logic programming, declarative and operational semantics, negation as failure, Prolog, "cut", logic and databases, logic and grammars, search and constraint logic programming.

Teaching and working methods

The theoretical foundations are reviewed in lectures and practiced in the tutorials. Skills in Prolog and constraint programming are demonstrated in the laboratory classes.

Examination

LAB1	Laboratory work	2 credits	U, G
TEN1	Written examination	4 credits	U, 3, 4, 5

Grades

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

Department

Institutionen för datavetenskap

Director of Studies or equivalent

Ahmed Rezine

Examiner

Wlodzimierz Drabent

Course website and other links

http://www.ida.liu.se/~TDDD08/

Education components

Preliminary scheduled hours: 48 h
Recommended self-study hours: 112 h

Course literature

Additional literature

Books

Nilsson, U., Maluszynski, J., (1995) *Logic, Programming and Prolog* second edition John Wiley & Sons Ltd

Other

Laboratory material.

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.