

Programming and Logic

Single subject and programme course

6 credits

Programmering och logik

729G06

Valid from:

Determined by

The Quality Board at the Faculty of Arts
and Sciences

Date determined

2007-06-18

Revision date

2016-08-25

Main field of study

Cognitive Science

Course level

First cycle

Advancement level

G1X

Course offered for

- Bachelor's Programme in Cognitive Science

Entry requirements

For admission to the course, the specific entry requirements that apply for admission to the Bachelor's Programme in Cognitive Science must be satisfied, and the course Programming and Discrete Mathematics, or the equivalent, must be completed.

Intended learning outcomes

On completion of the course, the student should independently be able to

- design computer programs and formal models for simple cognitive science applications,
- use concepts and models from first order predicate logic and apply logic in cognitive science fields such as linguistics, psychology, theory of knowledge,
- apply file management in program design and design programs with simple graphical user interfaces
- explain what programming means in terms of modelling of objects and behaviours, and create representations of objects and behaviours,
- relate and illustrate different programming paradigms,
- independently design and implement algorithms, models and programs in cognitive science fields such as AI, linguistics, experimental control and prototype construction.

Course content

The following areas are studied in the course

- logic, e.g. the bases of logic, logical operators, logical arguments,
- techniques for program design (sketches, diagrams, pseudo code),
- object-oriented programming,
- the programming language Python,
- code style,
- text processing and file management,
- simple associative databases and rule-based systems,
- programming of graphics and interaction.

Teaching and working methods

The course consists of lectures, teaching sessions/exercises and computer exercises and a project in programming. The course requires a large personal effort for proficiency training in addition to the scheduled teaching.

Examination

The course is examined through a written examination, computer exercises and a project.

Grades

Three-grade scale, U, G, VG

Other information

Planning and implementation of a course must take its starting point in the wording of the syllabus. The course evaluation included in each course must therefore take up the question how well the course agrees with the syllabus. The course is carried out in such a way that both men's and women's experience and knowledge is made visible and developed.

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Department

Institutionen för datavetenskap