Web Programming and Databases

Single subject and programme course

6 credits

Webbprogrammering och databaser

729G28

Valid from: 2010 Autumn semester

Determined by
The Quality Board at the Faculty of Arts and Sciences

Date determined
2009-06-12

Revision date
2016-08-25

Main field of study
Cognitive Science

Course level
First cycle

Advancement level
G2X

Course offered for
- Bachelor´s Programme in Cognitive Science
- Master Programme in Cognitive Science

Entry requirements
General entry requirements for undergraduate studies
and
English corresponding to the level of English in Swedish upper secondary education (Engelska 6)
and
Social Studies corresponding to the level of Social Studies in Swedish upper secondary education (Samhällskunskap 1)
and
Mathematics corresponding to the level of Mathematics in Swedish upper secondary education (Matematik 2)
and
90 ECTS credits from semester 1 to 4 of the Bachelor's program in Cognitive Science, including Cognitive Science Introductory Course 9 ECTS credits and at least one of the courses Information Technology and Programming 12 ECTS credits, Research Methodology and Statistics 9 ECTS credits, or Qualitative Research Methods 6 ECTS credits, or equivalent
or
95 ECTS credits from semester 1 to 4 of the Bachelor's program in information systems
(Exemption from Swedish)

Intended learning outcomes

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

- account for how databases function and how they can be used
- structure and work with large amounts of data by means of database design,
- account for central concepts in the database field,
- design a data model by means of ER modelling,
- design and use a relational database using SQL,
- account for what is good design of a database
- create dynamic web sides that use a relational database.

Course content

The contents of the course are focused on:

- principles of and use of common database management systems
- methods for database design and database use, for example Normalisation,
- data modelling techniques: The ER model, the relational model,
- Data manipulation with SQL
- PHP programming

Teaching and working methods

The teaching will be based on practical exercises, where different concepts and techniques are illustrated. In the course, a project is also included.

Examination

The course is examined through written examination, written assignments and a project. Examination comprises central concepts within the database area, data modelling, normalisation and data manipulation. The project examines data modelling, data manipulation and PHP programming. The written assignments examine data manipulation.

If the LiU coordinator for students with disabilities has granted a student the right to an adapted examination for a written examination in an examination hall, the student has the right to it. If the coordinator has instead recommended for the student an adapted examination or alternative form of examination, the examiner may grant this if the examiner assesses that it is possible, based on consideration of the course objectives.

Students failing an exam covering either the entire course or part of the course twice are entitled to have a new examiner appointed for the reexamination.

Students who have passed an examination may not retake it in order to improve their grades.

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.

Department

Institutionen för datavetenskap