IV1018 Models and Databases 7.5 credits

Modeller och databaser

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for IV1018 valid from Spring 2009

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

For "single course" students:

- Completed documented upper secondary education incl documented proficiency in English and Swedish.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course segment, the student shall:
- have insight in the area of databases
- have skills in modeling of information needs based on a business description
- have basic knowledge in information administration and database functionality
- be empowered to use relational databases and query languages

Course contents

Introduction to databases and the relational model
Modeling and database terminology and theory
Conceptual modeling
Logical relational database design
Relational algebra
SQL
Transaction management
Relational database management systems:
Recovery
Parallelism
Security
Brief introduction to embedded SQL in Java (JDBC)

Disposition

The course is carried out with lectures, lessons, tutorials, presentations, and tutoring. A project is conducted in two stages with compulsory presentations. The project is done in groups of 3 students.
For the project the following tools are used:
Rational Rose, Modelator, MS Access, MySQL

Course literature

Preliminary:

Connolly, Begg: Database Systems: A Practical Approach to Design, Implementation and Management (Upplaga: 4), Addison Wesley, 2005, 0-321-21025-5

Course material:
- Course Information (including lesson exercises, project assignment, etc)
- Lecture slides
- Compendiums for Microsoft Access and MySQL

Examination

- PRO1 - Project, 4.5 credits, grading scale: P, F
- TEN1 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

The examination is divided into:
Written exam and project (including compulsory attendance for certain activities, completed quizes and labs).

For the written exam, the scale A/B/C/D/E/Fx/F is used, while for the rest, only pass or fail are used. Both parts are required for a pass grade on the course. The final course grade is based solely on the exam.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.