



Course syllabus

Faculty Board of Science and Engineering

School of Computer Science, Physics and Mathematics

1DV014 Databasteknik, 7,5 högskolepoäng

1DV014 Database Technique, 7.5 credits

Main field of study

Computer Science

Subject Group

Informatics/Computer and Systems Sciences

Level of classification

First Level

Progression

G1F

Date of Ratification

Approved by Organisational Committee 2009-09-08

The course syllabus is valid from spring semester 2010

Prerequisites

At least 30 credits in Computer Science including elements as problem solving, algorithms, programming, and data structures or the equivalent.

Objectives

Upon completion of the course the student should be able to:

- briefly describe theories within the database area
- briefly describe methods which are used in that area
- independently analyze and evaluate different database applications
- independently or in a group develop database applications

Content

The course is an introduction to data base systems with focus upon relational databases. Applications and practicals are implemented on one or several database systems.

The course consists of:

- database concepts
- conceptual modelling
- relational models
- SQL

- relational algebra
- normal forms and normalization
- integrity
- security
- concurrence
- transactions

Type of Instruction

The course is given as a distance course. During the course it will be at least one meeting. Material will be available on the Internet. It is mandatory for the students to take an active part in the practicals and the individual project.

Examination

The course is assessed with the grades Fail (U) or Pass (G).

The mark Passed will be given to students that fulfil the expected learning outcomes.

On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

Course Evaluation

A written course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The course evaluation will be filed at the department.

Required Reading and Additional Study Material

Required reading

Date, C J, *An Introduction to Database Systems*, 7th Ed. Addison-Wesley, 1999. Pages 600 (975).

Padron-McCarthy, T & Risch, T, *Databasteknik*, Studentlitteratur, 2005. Pages 600 (600).