DD1334 Database Technology 6.0 credits

Databasteknik

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

The official course syllabus is valid from the autumn semester 2023 in accordance with the decision by the Head of School: J-2023-0550.Date of decision: 10/03/2023

Grading scale

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

Education cycle

First cycle

Main field of study

Information Technology,Technology

Specific prerequisites

- Knowledge and skills in programming, 6 higher education credits, equivalent to completed course DD1310/DD1311/DD1312/DD1314/DD1315/DD1316/DD1318/DD1331/DD100N/ID1018.
- Knowledge in basic computer science, 6 higher education credits, equivalent to completed course DD1320/DD1321/DD1325/DD1327/DD2325/ID1020/ID1021.

Active participation in a course offering where the final examination is not yet reported in LADOK is considered equivalent to completion of the course.

Being registered for a course counts as active participation.

The term 'final examination' encompasses both the regular examination and the first re-examination.

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, the student should be able to:

- explain the functions and structure of a database management system
- discuss the advantages and disadvantages of different database models
- model and structure data according to actual constraints
- explain the implications of different constraints on the database structure
- use a query language to formulate queries and describe the mathematical foundation for query languages
- write embedded SQL statements in a third generation programming language
- present independently acquired necessary knowledge orally and in writing.

Course contents

Definition of the relational data model. Information structuring according to the Entity-Relationship model.

Functional dependencies and their importance for good database design. Normalization. Query languages and their underlying mathematics.

Transaction management. Overview of different models for data representation.

Laboratory assignments using experimental and commercial systems.

Examination

- HEM1 - Home assignments, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- LABA - Laboratory Assignments, 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.

Transitional regulations

The earlier component TEN1 is replaced by HEM1.

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.