IV2014 Data Warehousing 7.5 credits

Data Warehousing

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 IV2014 valid from Autumn 2008

Grading scale

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

Education cycle

Second cycle

Main field of study

Specific prerequisites

Completed upper secondary eduction incl documented proficiency in English for courses taught in English. For courses taught in Swedish knowledge of Swedish is also required.

Language of instruction

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

Intended learning outcomes

The goals of the course is to:
- present research and trends in the area of Data Warehousing.
- introduce and explain advanced concepts in multidimensional modelling
- explain, exemplify and train in the ETL (extrac-transform-load) process
- explain the functionality and architecture of Data Warehouse Management Systems (DWMS)
- describe OLAP systems and compare them to OLTP systems
- train in using DWMS and OLAP tools
- describe the data warehouse lifecycle
- introduce decision support systems and techniques for decision support
- introduce the data mining area
- train in learning from international research publications

Course contents

The course contains the following parts:
1. Information requirements and information modelling relevant for enterprise management level
2. History, state-of-the-art, trends for data warehouse
3. Multidimensional modelling as a practical method for Data Warehouse design
4. The ETL process
5. Project management and lifecycle during the development and the maintenance of a Data Warehouse
6. Decision support systems
7. Business intelligence
8. Data Mining

Examination

- INL1 - Assignment, 3.0 credits, grading scale: P, F

- TEN1 - Examination, 4.5 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.

The examination of the course consists of a written exam (4,5hp) and a four assignments (3hp).
The grades for the written exam are: A/B/C/D/E/Fx/F.
The grades for the assignments are passed and failed (P/F).
The assignments are documented in reports and presented at seminars. The attendance at these seminars is compulsory. If nothing else indicated, the submission deadline for the reports is 24 hours before the corresponding seminar.
Students who are close to the passing mark on the written exam are offered the possibility to perform a complementary assignment. In this way the student can complement the exam to

the passing grade E. (Note, that this assignment can not be used for getting higher marks than E.). The complementary assignment must be submitted according to the deadline indicated in it. The students offered this possibility are informed with the announcement of the results from the exam.

Other requirements for final grade

To pass the course, both examinations need to be passed. The final grade for the course is determined by the grade from 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.