



FDD3342 Knowledge Discovery and Data Mining 6.0 credits

Databrytning

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

Establishment

Course syllabus for FDD3342 valid from Spring 2019

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

Language of instruction

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

Intended learning outcomes

After passing this course, you will:

- know the fundamental approaches to knowledge discovery and data mining, the main theoretical foundations, as well as its code of practice,

- know about several tools in the area and be able to use at least one,
- be able to follow research and development in the area,
- be able to assess the applicability of the technology for a particular scientific problem area, and develop the scientific methods used.

Course contents

KDD philosophy

Bayes rule and its interpretation as inference tool

Learnability, VC-dimension

Statistical Techniques: MV analysis, SVD technique, etc.

Classification and clustering

Bayesian networks and graphical models

Prediction and sequence mining

Markov Chain Monte Carlo methods

Support vector and kernel methods

Examination

- EXA1 - Examination, 6.0 credits, grading scale: P, 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.

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

Examination is individual, and can consist of presentations of texts, presentation in class, homeworks and/or a small project. A list of papers you read for the course, preferably with comments, and proposals for course improvement should be turned in.

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.