



LI1171 Models of Information Retrieval, Expanded Course 7.5 credits

Modeller för informationsåtervinning, utvidgad kurs

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 LI1171 valid from Autumn 2011

Grading scale

P, F

Education cycle

First cycle

Main field of study

Specific prerequisites

Previous registration on a KTH course is mandatory, preferably on a course with mathematical content, since the course in some parts assumes mathematical maturity. Students who have passed the course LI116N will be given priority.

Language of instruction

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

Intended learning outcomes

On completion of the course, the student shall be able to:

- * describe and explain central theoretical concepts in advanced information retrieval,
- * describe and analyse differences between models of information retrieval, and
- * evaluate the effectivity of search queries through different retrieval measures.

Course contents

- * Models of information retrieval. Vector space models and probability models.
- * Search query evaluation, relevance feedback.
- * Index construction, tokenization, vocabularies.
- * Semantical models, clusters, statistical thesaurus construction.
- * Measures, laws and algorithms for information retrieval.
- * Information retrieval on the web.
- * Individual studies within some areas of the theory of Information retrieval.

The content of the course may to some extent be adjusted in response to the students.

Course literature

Course literature is Manning, Christopher D., Raghavan, Prabhakar & Schütze, Hinrich (2008). Introduction to information retrieval. New York: Cambridge University Press. (Complementary reading, optional: Croft, Metzler, Strohman. Search Engines: Information Retrieval in Practice.) Additional material, according to the content of the last stage of the course. The students may be requested to individually search for and retrieve relevant material for their own project.

Equipment

Students should obtain a library card from the KTH Library before starting the course. The first two stages of the course are identical with the course LI116N. Some parts of the course may be given in English.

Examination

- INL1 - Assignment, 1.5 credits, grading scale: P, F
- SEM1 - Seminar, 3.0 credits, grading scale: P, F
- TEN1 - Examination, 3.0 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.

Other requirements for final grade

A pass mark requires

1. Satisfactory results in exercises and assignments, followed by
2. Satisfactory result on a written exam, followed by,
3. Mandatory and active attendance at seminars with discussions, presentation of material, writing an own paper, defending it, as well as examining other student papers at the seminars.

For students who fail the exams there will be given additional exams according to KTH regulations.

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.