UNIVERSITY OF BORÅS

Information retrieval 1
Information retrieval 1
7.5 credits
7.5 högskolepoäng

Ladok Code: C3LIR1
Version: 4.0
Established by: Committee for Education in Librarianship, Information, and IT 2018-04-24
Valid from: Autumn 2018

Education Cycle: Second cycle
Main Field of Study (Progressive Specialisation): Library and Information Science (A1N)
Disciplinary Domain: other
Prerequisites: Degree of Bachelor
Subject Area: Library and Information Science
Grading Scale: Seven-degree grading scale (A-F)

Content
The course deals with methods and models for representation, matching, ranking and presentation of documents and search formulations. These approaches are illustrated by both classical and modern theories belonging to the research area, including models for information retrieval on the web. In connection with this overview, questions are also addressed regarding how different linguistic phenomena such as semantic relationships and morphological variation can be handled for searching. The course also provides a practical overview of methods for evaluating search strategies and information retrieval systems.

Learning Outcomes
After passing the course the student should be able to, concerning:

Knowledge and understanding
1.1 Explain central concepts and describe advanced techniques of information retrieval.
1.2 Describe the differences between the classical retrieval models: the Boolean model, the classical probabilistic model, and the vector space model.
1.3 Explain the functionality of web search engines as well as the principles for ranking hypertext documents through link analysis.

Competence and skills
2.1 Perform a smaller, comparative experimental study in information retrieval.
2.2 Measure the retrieval effectiveness of queries using various measures, including precision and recall.

Judgement and approach
3.1 Critically analyze differences between the classical IR models: the Boolean model, the classical probabilistic model and the vector space model.
3.2 Independently and critically discuss and assess the outcome of a comparative experimental study in information retrieval.

Forms of Teaching
Instruction is given in the form of:
- lectures
- laboratory work
- practical walkthroughs
- exercises

The language of instruction is English.

Forms of Examination

The course is examined through:

Examination: home examination
Learning outcomes: 1.1, 1.2, 1.3, 2.2 and 3.1
Credits: 4,5
Grading scale: Seven-degree grading scale (A-F)

Assignment: written assignment
Learning outcomes: 2.1 and 3.2
Credits: 3,0
Grading scale: Fail (U) or Pass (G)

For the grade E on the entire course, the grade Pass (G) is required on *Assignment: written assignment* together with the grade E on *Examination: home examination*. A higher grade on the entire course is thereafter determined by the grade on *Examination: home examination*.

In the event of changes in course plans students who wish to complete courses can be examined on the basis of the most recent version of the course plan. For courses that are no longer running, students who wish to complete such courses can read all or part of an equivalent course.

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

Literature and Other Teaching Materials

The course literature is in English.

Baeza-Yates, R. & Ribeiro, B.D.A.N. (2011). Modern information retrieval: the concepts and technology behind search. (2. ed.) Harlow: Addison-Wesley. Chapter 1, 2, 3.1, 3.2, 4, 5, 6, 7, 11, 12, 16, 17 (381 p.)

In addition, literature and/or exercise material approx. 50 p.

Student Influence and Evaluation

The course is evaluated in accordance with the current guidelines for course evaluations at the University of Borås, where students' views should be sought. The course evaluation report will be published and disseminated to participating and prospective students in accordance with the current guidelines, and forms the basis for future development of courses and training programs. The course coordinator is responsible for that the evaluation is performed according to current guidelines.

Miscellaneous

The course is part of Master’s programme: Library and Information Science, Digital Library and Information Services.