



Course syllabus

Faculty Board of Science and Engineering
School of Computer Science, Physics and Mathematics

1IK213 Webbapplikationer och distribuerad datalagring, 7,5
högskolepoäng

Web applications and distributed data mining, 7.5 credits

Main field of study

Information Systems

Subject Group

Informatics/Computer and Systems Sciences

Level of classification

First Level

Progression

G1F

Date of Ratification

Approved by the Board of the School of Computer Science, Physics and Mathematics
2009-09-08

Revised 2010-08-05. Revision of prerequisites, literature list and course evaluation.

The course syllabus is valid from spring semester 2011

Prerequisites

At least 40 credits in the field of Informatics including two courses Database Design 15 credits (1IK013) and Systems Development and Programme Construction with Data Bases and .NET 7,5 credits (1IK203) or the equivalent.

Expected learning outcomes

Upon completion of the course, the student should be able to:

- account for the need of infrastructural changes within organizations and databases for global accessibility
- show the ability to practically implement and apply various technologies for developing and designing global information systems
- account for the security of information in databases for public access in the global network
- apply data mining and understand the meaning of collection and presentation of information in a global perspective.

Content

The course comprises:

- theories and methods for database applications and World Wide Web

- theories and principles for reliable and secure database servers
- databases and their relation to B2C- and B2B applications
- design of database structures for adaption in global networks
- secure distributed database access
- support the interaction of the database in a WWW-environment
- application development with links to different data-base architectures and various database sources
- principles and sets of databases to be included in solutions for data mining processes and information intelligence
- database design and structure of derivative works in internet / intranet with ODBC / JDBC architecture
- implementation of database solutions on the WWW in project form with any of the techniques CGI, ASP.NET, PHP and / or Java.

Type of Instruction

The course consists of lectures, seminars and tutoring.

Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

Assessment of student performance is made through written and/or oral examinations and/or presentation of mandatory assignments. The types of assessment used in the course will be decided at the beginning of the course.

On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

Course Evaluation

A course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The result of the course evaluation will be filed at the department.

Required Reading and Additional Study Material

Required reading

Matthew MacDonald och Mario Szpuszta, *Pro ASP.NET 3.5 in C# 2008: Includes Silver-light 2, Third Edition*, Apress, 2009. Pages 700 (1520).

Subhash Bhalla, *Databases in Networked Information Systems: 5th International Workshop*, DNIS 2007 Springer, 1 edition, 2007. Pages 250 (329).

DFM, *Compendium*, Linnæus University, current year. Pages 100.

Recommended supplementary reading

Hele-Mai Haav, Ahto Kalja, *Databases and Information Systems II Springer, 1 edition*, 2002.

Chrisanthi Avgerou, *Information Systems and Global Diversity*, Oxford University Press USA, 2002.