DM2517 XML for Publishing 7.5 credits

XML för publicering

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 DM2517 valid from Autumn 2009

Grading scale

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

Education cycle

Second cycle

Main field of study

Computer Science and Engineering,Information Technology,Information and Communication Technology

Specific prerequisites

Single course students: 90 university credits including 45 university credits in Mathematics or Information Technology. Swedish B or equivalent and English B or equivalent.

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 are that the student shall be able to

- develop XML based interactive web systems using W3C's principles for Device Independence.
- analyze and model the content-, navigation- and interaction models for an information system, and implement this in XML and database terms.
- use relational databases for web programming
- account for and apply the XML concepts valid, well formed, xslt-transformations, dtd and some examples of XML bases vocabularies used in media technology.
- account for differences between modeling information in a relational database and modeling information in an XML structure.
- formulate, plan and implement an information system development.
- find solutions to programming problems on the internet.
- use and develop enhanced podcasts for use in education and other contexts.

So that they will

- be able to do independent and make independent and critical judgments
- be able to independently discern, formulate and solve problems
- be able to seek and evaluate knowledge
- be able to follow knowledge development and
- gain the ability to participate in development and use of XML technology in production and development work.

Course contents

XML and XML related technologies with a focus on publishing and parallel publishing for use in interactive information systems. The most important part is transformations between different XML vocabularies using XSLT. Other areas covered are constraints with DTDs and XML Sche3mas, links with XLink and XPointer, XML based searches with XPath and XQuery, layout with CSS and XSL Formatting Objectstrans, metadata, RSS and Podcasts.

Half of the course consists of lectures and exercises in the areas mentioned above. Some areas are non-mandatory and not included in lectures, but can be read in order to get a higher grade. Most lectures are also available as enhanced podcasts and 3gp video files adapted for mobile use on iPods or mobile phones. The other half of the course is a programming project where an XML-based interactive web information system is built. Both the exercises and the project require independent work outside of the schedule, especially for students interested in higher grades.

The course contains many programming assignments.

Course literature

To be announced at least 4 weeks before course start at course web page. Preliminary book is "E. Rusty: XML in a nutshell, O'Reilly" was used.

Examination

- LAB1 - Laborator Work, 7.5 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.

In this course all the regulations of the code of honor at the School of Computer science and Communication apply, see: http://www.kth.se/csc/student/hederskodex/1.17237?l=en_UK.

Other requirements for final grade

Laboratory work and a project (LAB1; 7,5 university credits).

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.