



DM2033 Interactive Media Technology 7.5 credits

Interaktiv medieteknik

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 DM2033 valid from Autumn 2008

Grading scale

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

Education cycle

Second cycle

Main field of study

Specific prerequisites

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

- Utveckla XML-baserade interaktiva webbinformationssystem som använder W3Cs principer för Device Independence.
- Analysera och modellera innehålls-, navigations- och interaktionsmodellen för ett informationssystem och implementera detta i XML-termer och databastermer.
- Praktiskt använda relationsdatabaser för webbprogrammering.
- Redogöra för och tillämpa XML-begreppen valid, well formed, xslt-transformationer, dtd samt några exempel på XML-baserade vokabulärer inom medieteknik.
- Redogöra för skillnader mellan att modellera information i en relationsdatabas och att modellera information i en XML-struktur.
- Formulera, planera och genomföra en större egendefinierad webbprogrammeringsuppgift.
- Finna lösningar på programmeringsproblem på internet.
- Utveckla och använda enhanced podcasts i utbildnings- och andra sammanhang.

För att de ska

- Ha förmåga att göra självständiga och kritiska bedömningar,
- Ha förmåga att självständigt urskilja, formulera och lösa problem
- Kunna söka och värdera kunskap
- Kunna följa kunskapsutvecklingen inom XML
- Förvärvat kunskapsmässiga förutsättningar att kunna medverka i utveckling av och svara för utnyttjande av XML-teknik i produktion och utvecklingsarbete.

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, XML based searches with XPath, transformations with XSLT, metadata, SVG, SMIL, 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 2 weeks before course start at course web page. Preliminary book is "E. Rusty: XML in a nutshell, O'Reilly".

Examination

- PRO1 - Project, 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.

Other requirements for final grade

Laboratory work and a project (PRO1; 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.