UNIVERSITY OF BORÅS

Technologies of Digital Libraries 1

Teknik för digitala bibliotek 1

7.5 credits
7.5 högskolepoäng

Ladok Code: C3LTD1
Version: 3.1
Established by: Committee for Education in Librarianship, Information, and IT 2017-05-30
Valid from: Autumn 2017

Education Cycle: First cycle
Main Field of Study (Progressive Specialisation): Informatics (G1N), Library and Information Science (G1N), Information Architecture (G1N)
Disciplinary Domain: Natural sciences
Prerequisites: There are no explicit prerequisites.
Subject Area: Informatics/Computer and Systems Sciences
Grading Scale: Seven-degree grading scale (A-F)

Content

The course provides basic knowledge of and some skills in using XML-related techniques for widely different applications, both with regard to the development of collections and the development of services. Related techniques like Processed are HTML, CSS, DTD, XML Schema and XSLT. In addition, common models for database design, computer communications and data storage are going to introduced.

- Representation of document and data structures with XML
- HTML and CSS for electronic publishing
- Database theory and the relationship model
- SQL

Learning Outcomes

After passing the course the student should be able to, concerning,

Knowledge and understanding
1.1 Explain difference between standardized and proprietary technologies, with regard to development and maintenance of digital services and collections,
1.2 Describe the relational model for database structure and relate it to the development of a digital library infrastructure.

Competence and skills
2.1 Define and use any basic XML application
2.2 Use HTML and CSS in a formally correct manner
2.3 Analyse and implement conceptual and logical modelling of database

Forms of Teaching

The learning activities consist of:

- Workshops/laboratory sessions
- Lectures
- Exercises

The language of instruction is English.

Forms of Examination

The course is examined through:

Written assignment: XML
Learning outcomes: 1.1 and 2.1
Credits: 3,0
Grading scale: A-F

Written assignment: HTML and CSS
Learning outcomes: 2.2
Credits: 3,0
Grading scale: Fail (= U) or Pass (= G)

Written assignment: Database theory
Learning outcomes: 1.1, 1.2 and 2.3
Credits: 1,5
Grading scale: A – F.

Grade E on the whole course requires at least Pass or E, respectively, on all examination items. A higher grade is determined as follows:
The grades are transformed into a numerical value between 1 and 6 (where E = 1 and A = 6) and are summed together after multiplication by 3 and 1.5 respectively. The sum is divided by 4.5 and the final value retransformed into the seven grade scale, whereby common principles for rounding up or down are applied.

FinalValue = (XML*3 + DatabaseTheory*1.5)/4.5

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

Churcher, C. (2007). Beginning database design. New York: Berkeley, CA: Apress. (240 pages)

Duckett, J. (2011). HTML & CSS: Design and build web sites. Chichester: Wiley (512 pages)

Ray, E. T. (2003). Learning XML. Sebastopol, CA: O'Reilly. (Selected parts approx. 200 pages)

In addition, study material in the form of web resources (approx. 20 pages)

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.