

## Technologies of Digital Libraries 1

### Teknik för digitala bibliotek 1

7.5 credits

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**Ladok Code:** C3LTD1

**Version:** 5.2

**Established by:** Committee for Education in Librarianship, Information, and IT 2019-05-28

**Valid from:** Autumn 2019

**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)

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### Content

The course gives an introduction to structured data and programming, pinpointing needs in context to managing text based data in digital libraries. The student is expected to develop an understanding for basic programming and management of different data structures to be able to make basic implementations. The student is also expected to develop an understanding for how the different technologies work together in different contexts.

### Learning Outcomes

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

#### *Knowledge and understanding*

- 1.1 Demonstrate an understanding for the difference between structure and content in context to mark-up languages
- 1.2 Demonstrate an understanding for how content is dependent on semantics and notation in mark-up, structuring and programming
- 1.3 Show understanding for basic programming constructs

#### *Competence and skills*

- 2.1 Create simple functions for processing and managing text based data
- 2.2 Structure text based data according to predefined standards
- 2.3 Apply mark-up with a distinction between (form, shape, type) and content in context to text and data

#### *Judgement and approach*

- 3.1 Assess different technologies from a long term sustainability perspective

### Forms of Teaching

Tuition is conducted through lectures, workshops/labs and exercises

The language of instruction is English.

### Forms of Examination

The course is examined through:

- Assignment: XML

learning outcome: 1.1, 1.2, 2.2, 2.3, 3.1

Credits: 2,5

Grading scale: fail or pass (U-G)

- Assignment : HTML and CSS  
learning outcome: 1.1, 1.2, 2.2, 2.3  
Credits: 1,5  
Grading scale: fail or pass (U-G)

- Assignment: Basic programming  
learning outcome: 1.2, 1.3, 2.1  
Credit: 3,5  
Grading scale: A-F

For the grade E on the entire course the grade E or Pass (G) is required on all assignments. A higher grade on the entire course is thereafter determined by the grade on *Assignment: Basic programming*.

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.

If the student has received a decision/recommendation regarding special pedagogical support from the University of Borås due to disability or special needs, the examiner has the right to make accommodations when it comes to examination. The examiner must, based on the objectives of the course syllabus, determine whether the examination can be adapted in accordance with the decision/recommendation.

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.

Fawcett, J., Quin, L. R. E. & Ayers, D. (2012). *Beginning XML* (5th ed.). Indianapolis, Ind.: Wiley (v Chosen parts, approx. 150 pages)

Nixon, R. (2018). *Learning PHP, MySQL & JavaScript: with JQuery, CSS & HTML5* (5th ed.). Sebastopol, CA: O'Reilly. (Chosen parts, approx. 200 pages)

Exercises and scientific papers totalling approximately 50 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.