LIS5787 – FUNDAMENTALS OF METADATA THEORY AND PRACTICE

TERM 20XX | COURSE MEETING DAY/TIME

MODE OF INSTRUCTION: ONLINE

Students all meet with instructor for class weekly, synchronously, using a multi-media conferencing system such as Collaborate, at a specific class time indicated in the University's course schedule for each semester. Additional asynchronous interactions among students and with instructor will be required, as indicated below in course evaluation and assessments, to complete the course.

Instructor:
Email:
Office:
Phone:
Course Location/Website:
Office Hours (in office, online or via phone):
Teaching Assistant:
Email:

PREREQUISITE: LIS5703 OR instructor permission

COURSE DESCRIPTION:

Metadata is critical in accessing, managing, and exchanging electronic resources. This course will introduce students to the basic theories and principles of metadata design and creation using ER modeling, XML and RDF. The course will review major conceptual frameworks, ontologies and metadata schemas used in libraries, archives, museums, and digital data repositories. Real-life scenarios and collections will be used to highlight and gain understanding of the issues related to metadata creation, aggregation, and reuse.

COURSE OBJECTIVES:

At the end of the course, the student will be able to:

- Identify main metadata standards used by libraries, museums, archives, and digital data repositories, and be able to evaluate them critically (e.g., DC, MODS, PREMIS, CDWA Lite, METS).

- Produce encoded metadata using those standards as well as design new metadata schemas for different kinds of electronic resources and uses.

- Identify and distinguish the Semantic Web technologies used for encoding data, metadata, and knowledge (e.g., XML, XMLS, RDF/XML, Turtle, RDFS, SKOS).

COURSE MATERIALS:
Readings as assigned and posted to the course calendar.

Software:
- Standard text editor (e.g. Notepad, TextEdit, etc.)
- Optional: XML validation and Schema editors (e.g. Oxygen http://www.oxygenxml.com/download.html)

COURSE ASSIGNMENTS AND EVALUATION:

Participation **(25 points):**
- Attending the chat of Week 1 (REQUIRED); participating in the chat, posting a bio – 1 point
- Participating in the chats and discussions of Weeks 2-6 (5 weeks) – up to 15 points
  These 5 weeks cover metadata modeling and are essential for understanding the theoretical underpinnings of metadata design and implementation practices, and your overall success in this course. By carefully reading and analyzing the assigned materials, asking and answering questions, and posting cogent comments, you may earn a full credit for the week, develop strong a foundation for successfully completing the assignments and understanding and appreciating the issues covered in the weeks to follow.
- Participating in the chats and/or discussions of Weeks 7-15 (9 weeks) – up to 9 points
- NOTE: participation in Weeks 2-15 chats is OPTIONAL. Posting to discussion boards (DB)s, however, is REQUIRED. This means that you may earn a full credit for a discussion week even if you miss the week's chat (synchronous) session but participate in its DB (asynchronous) discussion. The inverse is not true.

Exercise 1: **Modeling an information resource using an Entity – Relationship diagram (25 points)**

In this assignment, students will represent a model of users and information resources using an Entity-Relationship (ER) diagram. Users and resources will conform to one of three types. Students will identify different usage scenarios that justify attributes included in the resource model. Using this ER model, students will create a relational table populated with instance data for each resource type. Students will document their modeling process in a summary paper. Specific instructions and a list of deliverables can be found in the course materials.

Exercise 2: **Metadata Creation (25 points)**

Students will create three XML records that conform to contemporary metadata standards based on resources from Exercise 1. They will explain how relational tables are mapped into the schemas; demonstrate that chosen schemas are the most appropriate for each resource type; and recommend improvements to the chosen schemas to better meet user needs. A specific list of deliverables for this assignment and a list of standard metadata schemas students can choose from can be found in the course materials.

Exercise 3: **Metadata Schema Creation (25 points)**

Students will design a new metadata schema to describe resources identified in Exercise 2. The new schema may be either descriptive, administrative or structural. Students may represent their schema as an XML Schema or as a human-readable data dictionary. A specific list of deliverables for this assignment can be found in the course materials.

GRADE CALCULATION:

Exercise 1	25 points
Exercise 2	25 points
Exercise 3	25 Points
Participation	25 Points
TOTAL	100 points

GRADING SCALE:

A	93 - 100
A-	90 – 92
B+	87 – 89
B	83 – 86
B-	80 – 82
C+	77 – 79
C	73 – 76
C-	70 – 72
D+	67 – 69
D	63 – 66
D-	60 – 62
F	0 – 59

COURSE SCHEDULE:

WEEK	TOPICS TO BE COVERED
1	Introduction to Metadata
2	eXtensible Markup Language (XML)
3	Metadata Modeling I

4	Metadata Modeling II and Resource Description Framework (RDF)
5	Metadata Requirements (Library Context)
6	Metadata Requirements (Museum and Archives Context)
7	Metadata Requirements (Scientific Digital Repositories)
8	Descriptive Metadata
9	Administrative Metadata
10	Metadata Interoperability
11	Resource Identifiers and Linking
12	Structural Metadata
13	Semantic Web
14	Linked Data
15	Social Aspects of Metadata Creation and Use
16	Wrap-up

UNIVERSITY POLICIES:

ATTENDANCE POLICY

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

ACADEMIC HONOR POLICY

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and... [to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at http://fda.fsu.edu/academic-resources/academic-integrity-and-grievances/academic-honor-policy)

AMERICANS WITH DISABILITIES ACT

Students with disabilities needing academic accommodation should:

(1) register with and provide documentation to the Student Disability Resource Center; and

(2) bring a letter to the instructor indicating the need for accommodation and what type.

Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from the Student Disability Resource Center has been provided.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center

874 Traditions Way
108 Student Services Building
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu
http://www.disabilitycenter.fsu.edu/

SYLLABUS CHANGE POLICY

"Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice."

SCHOOL OR DISCIPLINARY POLICIES:

COPYRIGHT STATEMENT

Some of the materials in this course are possibly copyrighted. They are intended for use only by students registered and enrolled in this course and only for instructional activities associated with, and for the duration of, the course. They may not be retained in another medium or disseminated further. They are provided in compliance with the provisions of the *Technology, Education, And Copyright Harmonization* (TEACH) Act (refer to the 3/7/2001 TEACH Act at www.copyright.gov/legislation/archive/).

SCHOOL OF INFORMATION HARDWARE AND SOFTWARE REQUIREMENTS

A list of all hardware and software requirements for students participating in the School of Information courses can be found at the following location: http://ischool.cci.fsu.edu/academics/online/requirements/

STUDENT ELIGIBILITY FOR AN INCOMPLETE GRADE

Incomplete ("I") grades will not be assigned, except in the case of exceptional unforeseen circumstances that occur within the last three weeks of the semester and your work has otherwise been satisfactory (C average).