COURSE SYLLABUS
Version 1.1

Introduction
Metadata can be used to facilitate resource discovery, to document the contents of databases, and to track the resources in a collection. Given the increasing number of schemes available for representing resources, effective development and application of metadata requires familiarity with the fundamental principles and structural models of metadata as well as particular schemes developed both for specific communities of resource users and for specific collections of resources. It is important for information professionals to appreciate the role of metadata in the administration of digital resources, in the provision of security, in the process of data mining, and in e-commerce.

This course is intended to introduce students to principles underlying the development and implementation of metadata schemes; to issues of interoperability, standardization, and the evaluation of metadata schemes; and to the role of metadata registries and crosswalks. The class is designed to provide extensive opportunities for hands-on application of metadata principles and practices in the development, implementation and evaluation of metadata records.

Course objectives
At completion of the course, a student will be able to:

1) create Dublin Core metadata records using Resource Description Framework (RDF) syntax;
2) design and implement an original metadata scheme;
3) develop and apply criteria for evaluating existing metadata structures;
4) make use of a range of metadata schemes developed for various disciplinary and commercial communities;
5) apply syntactical standards and semantic models to support interoperability across metadata schemes; and
6) use metadata for the administration, organization and discovery of resources

Class organization
Each session will include lectures and class discussions as well as in-class activities and review of assignments, when appropriate. Students may be asked to work in small groups and to report to the class on the results of small-group activities.

Required readings
There is no required text for this class. All course readings are available on the Z634 Metadata worksite on Oncourse. Required readings are subject to amendment by the instructor.
Grading
The student’s final course grade will be computed on the basis of grades earned for weekly assignments, the schema evaluation paper, and the final project. Satisfactory fulfillment of the minimum course requirements as outlined in the syllabus is considered "Good work" and will constitute a grade of B. (See p. 3 of this syllabus for definitions of letter grades). A grade of A or A- will be assigned only when the intellectual quality and the originality and/or creativity of the student’s work surpass expectations reflected in the minimum course requirements. Final course grade will be computed according to the following distribution:

<table>
<thead>
<tr>
<th>Assignment Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly assignments</td>
<td>40%</td>
</tr>
<tr>
<td>Schema evaluation paper</td>
<td>20%</td>
</tr>
<tr>
<td>Course project</td>
<td>40%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>

Weekly assignments
Weekly assignments will account for 40% of the student’s final course grade. Instructions for weekly assignments will be posted on Oncourse. Unless otherwise instructed, assignments are to be submitted via Oncourse no later than 5:00 pm on the Monday before the class for which they have been assigned. An assignment submitted after 5:00 pm but before 10:00 pm on the day due will be graded; however, the assignment will be considered late and the grade will be docked 10% of the assignment’s value. Any assignment submitted after 10:00 pm on the due day will not be graded.

Midterm and final exams
There will be no midterm or final exam in this class.

Schema evaluation paper
Each student will prepare a term paper that compares and contrasts two metadata schemes developed for representation of resources for two related communities of users or collections of resources. This paper will address significant issues related to the selected metadata schemes, including: the history of each scheme; the representational and organizational characteristics of each scheme and differences between the two schemes; the influence of the target resource collection or the intended community of users on the structure of each scheme; and a critical evaluation that addresses specific strengths and weaknesses of each scheme as well as its appropriateness for specific communities of users. The schema evaluation paper is to be submitted via Oncourse no later than 5:00 pm on October 25, 2013.

Course project
The course project will involve development of a metadata scheme for a collection of resources selected by the student. The components of the project will include: identification of a set of metadata elements and attributes appropriate for representation of the resources in the collection; construction of a metadata schema (with definitions for all schema elements) using the RDF/RDFS architecture; application of the metadata scheme to construct metadata records for each resource in the collection; and an evaluation of the perceived utility of the scheme. The course project will constitute 40% of the final grade and is to be submitted via Oncourse no later than 5:00 pm on December 16, 2013.

Class participation
Because learning is an active process, each student will be expected to contribute in class activities. Class participation consists of attendance, preparation, and participation in discussions and other class activities.
Evaluation Policies

Late submissions:
In fairness to students who submit assignments on time, late submissions will be penalized by lowering the earned grade one level (e.g., from B to B-). Submissions more than one day late will not be accepted.

Incompletes
Each student is expected to structure his/her time so as to complete all coursework in accordance with the class schedule. A grade of incomplete will be considered only if exceptional circumstances warrant.

Formatting policy
- All assignments will have a header that includes your name, the assignment name, the date and consecutive page numbering, when appropriate.
- All assignments will be submitted in Word or Excel format.
- All assignment files will use the general naming format [username]-[assignment].doc (e.g., ejacob-Assignment2.doc). To avoid confusion, file names for individual assignments will be specified in assignment instructions. The schema comparison paper will use the following format: [username]-[SchemaComp].doc (e.g., ejacob-SchemaComp.doc). The final course project will use the following format: [username]-[FinalProject].doc (e.g., ejacob-FinalProject.doc).

Citations
Graduate students should always assume that any assignment will require citations to all resources used in the creation of that assignment. In this course, all citations will be formatted according to APA (6th ed.).

Academic dishonesty
Policies on academic dishonesty have been established by Indiana University Bloomington. Students in this class must adhere to these policies, which can be found in the Code of Student Rights, Responsibilities and Student Conduct. Part II: Student Responsibilities, Section G. Uphold and maintain academic and professional honesty and integrity defines academic misconduct and specifically addresses the issue of plagiarism in subsection 3; it is available online at http://www.indiana.edu/~code/code/responsibilities/academic/index.shtml

As Dr. Alice Robbin points out in her Fall 2008 syllabus for S506, there is more to avoiding plagiarism than simply citing a reference. She observes that, in order to aid students both in recognizing plagiarism and in avoiding any appearance of plagiarism, Indiana University's Writing Tutorial Services has prepared a short guide entitled "Plagiarism: what it is and how to recognize and avoid it". This guide provides explicit examples of plagiarism and offers strategies for avoiding it. Each student should be familiar with this document and use it as a guide when completing assignments. The guide is available at http://www.indiana.edu/~wts/pamphlets/plagiarism.pdf

Dr. Robbin also offers three "rules" for avoiding inadvertent plagiarism -- rules that she attributes to Ralph Brower, a colleague at Florida State University:

1. Whenever you "borrow" material, from any resource whatsoever, for inclusion in a document you are writing, you must provide a footnote, endnote or parenthetical reference (with accompanying bibliographic citation) identifying the original resource. If you have any questions about how to do this, review the guidelines set out in the current edition of the APA Style Manual.

2. Any time that you quote any resource verbatim, you must enclose the text in quotation marks and identify the original resource, as indicated in (1).

3. Text that you paraphrase and ideas or opinions that you "borrow" must also be attributed, as indicated in (1), even if you do not quote the original source verbatim.
Any assignment that contains plagiarized material or indicates any other form of academic dishonesty will receive, at a minimum, a grade of F. A second instance will result in an automatic grade of F for the course. Penalties may be harsher depending on the severity of the offense.

Special needs
If you are a student with a special need, please feel free to discuss it with me.

Grading scale:
Grades will be assigned according to the SLIS Grading Policy for Master's and Specialist Level Students. This policy was defined by student and faculty members of SLIS’s Curriculum Steering Committee and was adopted by the Faculty of the School of Library and Information Science, Indiana University Bloomington, on November 11, 1996, as an aid in evaluation of student performance:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Numerical Equivalent</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td>Outstanding achievement. Student performance demonstrates full command of the course materials and evinces a high level of originality and/or creativity that far surpasses course expectations.</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>Excellent achievement. Student performance demonstrates thorough knowledge of the course materials and exceeds course expectations by completing all requirements in a superior manner.</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>Very good work. Student performance demonstrates above-average comprehension of the course materials and exceeds course expectations on all tasks as defined in the course syllabus.</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>Good work. Student performance meets designated course expectations, demonstrates understanding of the course materials and performs at an acceptable level.</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td>Marginal work. Student performance demonstrates incomplete understanding of course materials.</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course materials.</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course materials.</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
<td>Unacceptable work. Coursework performed at this level will not count toward the MLS or MIS degree. For the course to count toward the degree, the student must repeat the course with a passing grade.</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
<td>Failing. Student may continue in program only with permission of the Dean.</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td>Failing. Student may continue in program only with permission of the Dean.</td>
</tr>
<tr>
<td>D-</td>
<td>0.7</td>
<td>Failing. Student may continue in program only with permission of the Dean.</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
<td>Failing. Student may continue in program only with permission of the Dean.</td>
</tr>
</tbody>
</table>
Schedule of
SESSiON TOPiCS and READiNGS
Version 1.0

For each class session, the following schedule contains a statement of the topic to be addressed in
lecture and discussion and a list of materials that are to be read before class. Required readings
should be read in the order in which they are listed. Recommended materials are listed alphabetically and may be read in any order. Readings are subject to amendment by the instructor.

Session 1 -- August 28
Introduction

Session 2 -- September 4
What is metadata?
Required reading for Session 2:
McCarthy, J. L. (1982). Metadata management for large statistical databases. In VLDB '82:
Proceedings of the Eighth International Conference on Very Large Data Bases (pp. 234-243).
San Francisco: Morgan Kaufmann.
American Library Association, Committee on Cataloging: Description and Access (2000, June).
Appendix II: Definitions submitted with sources. In Task force on metadata: Final report.
Retrieved January 3, 2011, from http://wwwlibraries.psu.edu/tas/jca/ccda/tf-
meta6.html#appx2

Recommended reading for Session 2:
American Library Association, Committee on Cataloging: Description and Access (2000, June).
http://wwwlibraries.psu.edu/tas/jca/ccda/tf-meta6.html
3.0]. Retrieved January 3, 2011, from
http://www.getty.edu/research/publications/electronic_publications/intrometadata/index.htmml
Philosophical Transactions of the Royal Society of London, Series A, Mathematical and Physical
Sciences 322(1567), 373-391.
http://www.dlib.org/dlib/june97/06lagoze.html

Session 3 -- September 11
Metadata principles and practical applications
Required reading for Session 3:
Lib Magazine 8(4). Retrieved August 9, 2013, from
http://www.dlib.org/dlib/april02/weibel/04weibel.html

Recommended reading for Session 3:

Session 4 -- September 18
Introduction to Dublin Core Metadata Element Set (DCMES)

Required reading for Session 4:

Recommended reading for Session 4:

Session 5 -- September 25
Resource Description Framework [RDF] model and syntax

Required reading for Session 5:
Tauberer, J. (2008). What is RDF and what is it good for? Retrieved January 11, 2011, from http://www.rdfabout.net/intro/ [Although it appears that this article is no longer available online, a pdf of the 2011 download is included in Resources / Readings in the Z634 workspace on Oncourse.]

Recommended reading for Session 5:

Session 6 -- October 2
RDF syntax

Required reading for Session 6:

Recommended readings for Session 6:

Session 7 -- October 9
DCTerms and the DCMI abstract model

Required readings for Session 7:

Session 8 -- October 16
Implementing DCTerms in RDF syntax

Required reading for Session 8:

Session 9 -- October 23
Resource Description Framework Semantics (RDFS) and the metadata schema
Required reading for Session 9:

SCHEMA COMPARISON PAPER-- Due October 25 at 5:00 pm

Session 10 -- October 30
The metadata project: from resource domain to schema implementation
Required reading for Session 10:

Recommended reading for Session 10:

Session 11 -- November 6
Resource Description Framework Semantics (RDFS) and the metadata schema
Required reading for Session 11:

Session 12 -- November 13
Schema Workshop I

Session 13 -- November 20
Schema Workshop II

November 27 -- Thanksgiving break -- NO CLASS

Session 14 -- December 4
Simple Knowledge Organization System [SKOS]

Required reading for Session 14:

Recommended reading for Session 14:

Session 15 -- December 11
Schema Workshop III

December 16 -- FINAL PROJECT -- Due 5:00 pm
Recommended reading on RDFa syntax [NOTE: * indicates previously required reading]


Recommended reading on Turtle syntax [NOTE: * indicates previously required reading]


Recommended readings on Interoperability: standards, registries, crosswalks [NOTE: * indicates previously required reading]


