Simmons College
Graduate School of Library and Information Science
LIS 469-OLC
XML - eXtensible Markup Language
Spring 2014

Instructor
Aaron Rubinstein
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How to contact the instructor:
1. Email, please expect a response within one business day
2. Virtual office hours
3. Open forum

Course Description
This course introduces students to eXtensible Markup Language (XML), its role as a standard in enabling and managing metadata applications, and its application as a data-modeling technique. Students create XML-based schemas and learn to apply transformations using eXtensible Stylesheet Language (XSL). The course examines a wide range of applications of XML in libraries, archives, and related information settings and considers the technical requirements of making XML-tagged content available and useful to Web browsers and to metadata harvesting applications such as the OAI (Open Archives Initiative). Topics include XML applications in bibliographic utilities, cross-walks between XML and other systems, the role of XML as an alternative or complement to the structured database model, and managing metadata services with XML.

Course Outcomes
Students will:
• Understand the evolution, theoretical context, and application of XML
• Acquire practical experience with XML, schemas, XSLT, and XML publishing
• Gain a basic understanding of XML programming and publishing models
• Be introduced to the principles, issues, and challenges of data management
• Recognize the relationship of XML and metadata, and the role of XML in libraries
• Become familiar with the broader use of XML on the Internet
• Be able to evaluate XML applications in the context of a library, or other information setting

Through activities, assignments, readings, and projects, this course addresses the following GSLIS student learning outcomes:

• Demonstrate the ability to apply standards relevant to specific information service activities.
• Demonstrate knowledge of print and electronic information retrieval procedures.
• Analyze, synthesize, and communicate information and knowledge in a variety of formats.
• Assess, create, and evaluate systems for managing content.
• Analyze information problems and develop solutions drawing from a wide range of information technology tools and practices.

Course Expectations

In this course, you are expected to:

Actively Engage in Course Activities, Readings, & Discussions: In many ways, the online discussions are the heart of this course. It is imperative for you to complete your work and post to the discussions in a timely manner. Participation should be substantive, thoughtful, and constructive.

Please note that if, for any reason, you cannot meet an assignment or posting deadline, it is your responsibility to make other arrangements with the instructor.

Post Promptly: Posting on time is important for many reasons. First, your course colleagues need your perspective and feedback. Second, posting to the discussion is akin to attendance in a face-to-face class -- if you don't post, or you post late, it is the same thing as "skipping" class.

Provide Your Peers with Substantive Feedback: In this course you are part of a community of learners. The success of the course depends on your interaction not only with the required material, but also with the posts of your peers. Complete and submit all assignments on time.

Late assignments will be docked a grade (for example, A to an A-) for each day late, unless previously exempted by the instructor. Assignments are to be posted to your web site before the beginning of class.

Simmons GSLIS expects each of its students to uphold the Honor Code (available at http://my.simmons.edu/gslis/resources/student-info/honor-code.shtml) and does not tolerate academic dishonesty such as plagiarism, cheating, or academic fraud. Penalties range from failure on the assignment, failure in the course, or dismissal from the program.

Reasonable accommodations will be provided for students with documented physical, sensory, systemic, cognitive, learning and psychiatric disabilities. If you have a disability and anticipate that you will need a reasonable accommodation in this class, it is important that you contact the Director of the Academic Support Center, at 617-521-2471 early in the semester. Students with
disabilities are also encouraged to contact their instructors to discuss their individual needs for accommodations.

This syllabus is not a contract. The instructor reserves the right to alter the course requirements and/or assignments based on new materials, class discussions, or other legitimate pedagogical objectives.

**Guidelines for Participating in Online Discussion**

Much of online learning is discussion-oriented. Online discussions are a wonderful opportunity for you to collaborate with and learn from your peers. But these discussions do take some time getting used to, because it's as if every word spoken in a face-to-face class is written down for you to read. And anything you want to "say" in class also needs to be written down. Please think of the discussion forum as our "classroom," and consider what is and is not appropriate for sharing in that environment, and how best to provide constructive feedback and encouragement to your colleagues. Please post within the designated deadline. You depend on your peers' timely input, same as they are counting on you to contribute in a timely manner. Likewise, if you don't comment on the posts of your peers or provide them with feedback within the specified time frame, others can't benefit from your input. Be polite. All messages should be written in a civil tone with non-offensive language. Avoid all caps. In the online world, ALL CAPS MEANS YOU ARE YELLING.

If you are confused or need a further explanation, post a question. If you need help, it is likely that others do as well. If someone sends you an email message, get their permission before forwarding their message or part of their message to another person or posting excerpts to a discussion group.

If you are posting a question to the Learning Common forum, look at the previous posts to see if the question has already been asked before you post. Read a sampling of messages in a discussion thread before posting your response — that way you can avoid saying something that's redundant or off-topic. Re-read your post before you post it. Make sure your sentences are complete and there are no typos. Your editing will help ensure that you have expressed yourself in the manner you wanted. Avoid using shorthand. If you are going to use shorthand, stick to more universally known shorthand/text messaging acronyms such as y for “why” and k for “okay”.

Readings

Required texts:


Goldberg, Kevin Howard. *XML: Visual QuickStart Guide*. (2nd ed.) Berkeley, CA: Peachpit Press, 2009. [Relevant chapters have been made available as PDFs on the course Moodle site]

Additional assigned readings will be available on the Moodle site. **All readings are required.** We may not directly discuss all readings, but they are essential to your understanding of both the practical and conceptual aspects of XML and its role in libraries.

Assignments

This course includes five assignments. Details for each of the assignments will be available on the Moodle site. All assignments are to be posted to your web portfolio by the date and time specified.

1. Web Portfolio Site – Due January 26
2. Well-formed XML – Due February 8
3. Validation – Due February 16
4. XSLT – Due March 16
5. XML Publishing Project – Components Due April 6 and April 20

Grading

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage of Grade</th>
</tr>
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<tbody>
<tr>
<td>Web Portfolio Site</td>
<td>5%</td>
</tr>
<tr>
<td>Well-formed XML</td>
<td>15%</td>
</tr>
<tr>
<td>Validation</td>
<td>15%</td>
</tr>
<tr>
<td>XSLT</td>
<td>20%</td>
</tr>
<tr>
<td>XML Publishing Project</td>
<td>35%</td>
</tr>
<tr>
<td>Class Participation/Discretionary</td>
<td>10%</td>
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</tbody>
</table>
Class Schedule

Note: this schedule lists only the course readings and assignments. All required tutorials, presentations, and activities are listed on the Moodle site.

Module 1: Course Overview
January 13 – January 19

Required Reading:
• All introductory Moodle content
• Course syllabus

Assignments:
• Web Portfolio due: January 26, 11:59pm EST

Module 2: Introduction to XML
January 20 – January 26

Required Reading:
• Beginning XML, Chapter 1
• W3C, “XML in Ten Points”
• DuCharme, Bob, “A brief, opinionated history of XML”
  http://www.snee.com/bobdc.blog/2012/01/a-brief-opinionated-history-of.html

Module 3: Well-Formed XML
January 27 – February 2

Required Reading:
• Beginning XML, Chapter 2

Assignments:
• Well-formed XML, due: February 3, 9:00am EST
Module 4: Validation  
*February 3 – February 9*

**Required Reading:**
- Beginning XML, Chapters 4, 5, and 6

**Assignments:**
- Validation, due: **February 16, 11:59 EST**

Module 5: XPath  
*February 10 – February 16*

**Required Reading:**
- Goldberg, Chapters 3 and 4

Module 6: XSLT Part I  
*February 17 – February 23*

**Required Reading:**
- Goldberg, Chapter 2

Module 7: XSLT Part II  
*February 24 – March 2*

**Required Reading:**
- Goldberg, Chapters 14 and 15

**Assignments:**
- XSLT, due: **March 17 11:59 EST**

Module 8: More XML Standards (XSL:FO, Namespaces, etc.)  
*March 3 – March 9*

**Required Reading:**
- Goldberg, Read Chapters 5, 12, 13 and Review Chapter 16

**SPRING BREAK**  
*March 10 – March 16*
Module 9: XML in Libraries  
March 17 – March 23

Required Reading:

- OAI-PMH for Beginners, Sections 1-3, 6: [http://www.oaforum.org/tutorial/](http://www.oaforum.org/tutorial/)
- Review the web sites for these standards:
  - METS: [http://www.loc.gov/standards/mets/](http://www.loc.gov/standards/mets/)
  - EAD: [http://www.loc.gov/ead/](http://www.loc.gov/ead/)

Module 10: Text Encoding Initiative (TEI)  
March 24 – March 30

Required Reading:

- Additional readings TBA

Assignments:

- XML Publishing Project Part I, due: April 6 11:59 EST

Module 11: MODS/METS  
March 31 – April 6

Required Reading:

Assignments:
  • XML Publishing Project Part II, due: April 20 11:59 EST

Module 12: Data Migration and Interoperability
April 7 – April 13
Required Reading:
  • Additional readings TBA

Module 13: XML and the Web
April 14 – April 20
Required Reading:

Module 14: Wrap up
April 21 – April 27
Required Reading:
  • Required readings TBA