XML for Libraries
Instructions for Student Project

1. *Purpose of the project*

The purpose of the project is to provide you the opportunity to research an XML application based on a standard schema and to demonstrate proficiency in using that application. While some XML users do design their own XML applications, most XML users choose an XML application that is based upon some standard schema (EAD, MODS, CDWA, etc.). The benefits of choosing to use a standard schema are many:

- Standard schemas help codify industry best practices.

- Standard schemas usually give rise to a community of users that support each other in their use of the schema.

- There is training available for standard schemas in the form of tutorials, books, and manuals.

- Data coded using standard schemas is easily shared with collaborators and more easily imported into existing systems.

- Free (or affordable) tools are often available to help in the authoring, processing, and visualization of data coded using standard schemas. These sometimes include useful XSLT stylesheets for transforming content and creating high quality output.

2. *Choosing a standard schema*

The reason that I have assigned the weekly discussion topics (of which I have expected you to post comments on 3) is to provide a fair sampling of standard XML schemas used in the LIS field. The list covered this semester has included:

- EAD
- EPUB
- MODS
- TEI
- METS
- DocBook
- MARCXML
- DITA
- CDWA
- OAI-PMH

Most of you will be able to pick something from this list for your project. Nevertheless, I am open to projects based on other standard XML schemas. Before you pursue a project based a schema that is not on the list provided, please check with me to make sure that we both agree that it is appropriate.

Our weekly discussion session is an ideal time for us to talk through project ideas. I am also available to speak with students individually to help them identify a subject or to refine a project approach. So, please don't hesitate to contact me.

3. **Timing and Expected Effort**

The due date for the project is May 15th (see Week 16 in the Weekly Schedule). If you start your project by early April, you should have plenty of time to complete the project and write the project report. Remember that this is a proof-of-concept project. So, I am expecting you to create enough content to show that you have mastered the XML application and to show that you can transform that content into useful output. You do not need to encode an entire corpus into XML to prove the concept. If you have questions about just how much of your kind of content is enough, then please contact me and I will coach you through that decision.

4. *The project deliverables*

Each student is expected to plan and conduct a proof-of-concept project using a standard XML schema (or family of schemas). Projects might include any of the following:

- Identifying an XML-based document standard used for content-management and publishing. Coding a modest-sized body of content using that standard and creating multiple XSLT stylesheets that publish the content in multiple arrangements as XHTML pages.

- Identifying an XML-based metadata document standard. Coding a modest-sized body of content using the standard and creating multiple XSLT stylesheets that publish the content in multiple arrangements as XHTML pages.

- Other demonstration projects that include authoring documents based upon an existing XML-based coding standard and transforming them into multiple forms of HTML pages using multiple XSLT stylesheets.

Each proof-of-concept project must include the following deliverables.

a. Project Code

All coding for the project will be done using the Oxygen XML editor. Files should be organized into an Oxygen XML Editor project to allow for easy demonstration of the solution. The Oxygen XML Editor project and its related files should be combined into a single zip file and submitted using the D2L dropbox provided.

b. Project Report
The Project Report will provide details regarding the choice of XML schema standard, a description of the code delivered with the project, brief instructions on how to test the project code, and a summary of the student's learning experience

in conducting the project. A required outline for the project report follows. A grading rubric for the project will be posted in the Weekly Schedule.

The project report can be written with any word processor. But, the document submitted must be a PDF file. For more details on submitting the project report, see *Submission* (below).

5. *Required outline for project report*

Section No.	Section Title	Section Contents	Length / Form
1	XML Application Overview	A description of the standard schema, its user community, its range of use, and the reasons why you found this schema appealing.	1 – 2 single-spaced pages. Prose.
2	Code Manifest and Test Instructions	A detailed description of the files submitted with this project including filenames, contents, purpose, etc. Also, a set of brief instructions on how to test the code that has been submitted.	1 – 2 pages. Lists, prose.
3	Learning Outcomes	A statement regarding what you learned (factually and by experience) while doing this project.	0.5 – 2 pages single-spaced. Prose.

6. **Submission**
   Submit one .zip file containing both your code and your project report. Before zipping, all of your work should appear under a single directly named using the following scheme:

   ```
   trainor_kevin_student_project
   ```

   Your report should be one PDF file contained in a subdirectory named:

   ```
   report
   ```

   All of your code should be contained in a subdirectory named:

   ```
   code
   ```

   Please remember that the code portion of your submission should include an Oxygen project that can be used to run tests of your code.

   The single file that you submit should have the following naming scheme:

   ```
   trainor_kevin_student_project.zip
   ```