

Course Number & Name: LIS 531F - XML – eXtensible Markup Language

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 schemas and document type definitions (DTDs), 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.

- **Prerequisites:** : LIS 488 and LIS 415
- **Audience (level, environment/setting):** Students interested in online databases, digital libraries and archives, information retrieval, Web-based information services, and multimedia. Students interested in organization of information and metadata.
- **Student Learning Outcomes** [by number]: 1, 2, 3, 4, 6, 10
- **Topics/List of Lectures:**
 - Review of metadata generally
 - Review of the bibliographic metadata context, benefits of XML
 - Review of client/server model and full-text retrieval
 - XML introduction
 - Relationship of SGML, HTML, XML
 - DTDs, XML schemas; RDF, namespaces, CSS, XSL, XSLT
 - Modeling your own “digital archive”
 - Identifying data properties, building an XML schema, applying it to data
 - Displaying XML -tagged records in a Web browser
 - Emerging/evolving standards (examples)
 - Domain-specific, e.g., EAD, TEI, METS, MODS, Xr(rights)ML
 - Interoperability (technical and semantic)
 - Cross-walks and conversions, XML as a basis for metadata harvesting
 - XML and databases (e.g., Gateway to Education Materials)
 - Managing metadata applications through XML
- **Suggested Textbooks/Readings**

- Tennant, Roy. (2002). *XML in libraries*. New York: Neal-Schuman.
- Miller, Dick R., & Clarke, Kevin S. (2003). *Putting XML to work in the library: Tools for improving access and management*. Chicago, IL: American Library Association.
- **Course History:**
 - October 2004: discussed at curriculum retreat; voted in as new course (12/04)
- **Document prepared by:** Candy Schwartz, 10/04