



## **LIS 2600: Introduction to Information Technologies Summer 2012**

The goal of LIS 2600 is to provide each student with relevant knowledge and skills in the area of distributed computing. Toward that end, the course operates at two levels. The first level is a general introduction to aspects of computing and networking, focusing in particular the operational requirements of working in cross- and multi-platform environments with certain applications and systems, including databases, Web servers, content management systems, digital library and repository systems, and editing tools designed to support the creation of HTML documents, cascading stylesheets, and documents conforming to the EPUB standard for digital books.

The course is concerned with standardization and technical standards, measurement and evaluation of relevant technologies and their utilization, and the impact of information technologies on the design of services and workflows. But it also focuses on a series of exercises that are intended to provide each student with relevant, “hands-on” experiences in dealing with various library and archival technologies, including: (1) bibliographic information management systems; (2) content management systems; (3) digital repository systems; (4) integrated online library systems; (5) Website development and management; and (6) e-book design and production.

## **Syllabus/Schedule**

### **May 14-20: Introduction: Basic Technologies**

- Basic Aspects of Operating Systems (with an Emphasis on OS X, Windows, and Linux)
- Remote Login via [SSH](#)
- File Transfer via [SFTP](#)
- [Web Browsers](#) and Their Extensions, including Privacy and Security Issues

### **May 21-27, May 28-June 3: Part 1: Bibliographic Information Management/ Information Gathering & Manipulation**

- Bibliographic Information Management Systems
  - [RefWorks](#)
  - [Zotero](#)
  - [Mendeley](#)
- Collaboration via Google Docs, [Evernote](#), etc.
- Exporting to Databases

### **June 4-10, 11-17: Part 2: Using Web Technologies in Library and Archival Settings**

- Database Design and Implementation in Bibliographic Settings
- Content Management Systems
  - [Drupal](#)
  - [Wordpress](#)
- Google Analytics
- Google Custom Search Engine

### **June 18-24, 25-July 1: Part 3: Digital Collection Building**

- Digital Repositories
  - Review of [DSpace](#), [CONTENTdm](#), [ePrints](#), and [Omeka](#)
  - Creating Collections and Exhibits with Omeka
- Integrated Online Library Systems
  - Review of Evergreen, Koha, and LibraryWorld
  - Interoperability, Workflow, and Other IOLS Issues

## July 2-8, 9-16, 17-23, 24-30: Part 4: HTML/CSS Composition; eBooks

Creating Web Pages  
Formatting Web Pages with CSS  
Managing Web Sites  
Creating eBooks

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### Assignments

**Assignment 1:** *Part 1:* Search the [Scopus](#) database available through the University Library System's [digital library services](#), employing [RefWorks](#) to capture no fewer than 25 references on topics related to library and archival computing. [Google Scholar](#) should be used to capture an additional 25 citations on open source computing for education and/or libraries, and those references should be imported into RefWorks and stored in a separate folder. Each folder should then be shared with [christomer@gmail.com](mailto:christomer@gmail.com); *Part 2:* The references from each folder should be exported from [RefWorks](#), with references in the APA format, and imported into Google Docs. One document should be in the form of a spreadsheet, and the other should be a formatted text document. The spreadsheet and text document should be shared with [christomer@gmail.com](mailto:christomer@gmail.com). The assignment is due on May 28. (10 points)

**Assignment 2:** *Part 1:* Using Zotero, capture 25 references concerned with the application of Web 2.0 technologies in online library services. The references should be shared with [christomer@gmail.com](mailto:christomer@gmail.com), through the creation of a private group; *Part 2:* The references captured via RefWorks and Zotero should be imported into Mendeley and placed in a folder named "LIS 2600 Resources" and shared with [christomer@gmail.com](mailto:christomer@gmail.com). The assignment is due on June 4. (10 points)

**Assignment 3:** *Part 1:* Using Jing – see <http://www.techsmith.com/jing/free/>, create a

brief presentation, with audio narrative, comparing RefWorks, Zotero, and Mendeley. Then, save the recording to [screencast.com](http://screencast.com), and send the URL to [christomer@gmail.com](mailto:christomer@gmail.com); *Part 2*: Embed your screencast in a page on your WordPress blog, The assignment is due on June 11. (10 points)

**Assignment 4:** An exhibit of 15 images should be constructed, using an instance of [Omeka](#), a system developed by the [Center for History and New Media](#) for the purpose of cataloging Web resources. Your collection should incorporate Web-based materials concerned with design and/or use of e-books. A description of the exhibit, its sources, and a link to the exhibit should be posted to your Wordpress blog. The assignment is due on June 18. (15 points)

**Assignment 5:** Each student will activate an account on the Koha ILS. (The URL of the instance being used this term is <http://upitt05-staff.kwc.kohalibrary.com/>.) The accounts will provide access to the administrative functions of the Koha ILS (integrated library system). Your task will be to catalog 15 unique bibliographic items on a subject of your choice, create the appropriate subject authorities, permissions for access, etc., and make those items available through Koha's "Lists" (previously known as the "Virtual Shelves"). More detailed instructions about the use of the Koha system and a rubric for the assignment will be distributed prior to the initiation of the assignment. The assignment is due on June 25. (15 points)

**Assignment 6:** Create an HTML version of your resume, with inline styling as the basis for the formatting. The resume should include sections describing your skills, work experience, and education. It should be mounted on your personal Website (as `your_surname_resume.html`) and linked to your Wordpress blog. The assignment is due on July 9. (10 points)

**Assignment 7:** *Part 1*: Format this [fragment](#) from *American Notes*, by Rudyard Kipling, using HTML and an externally linked stylesheet; the goal is to recreate the look and feel of an early edition of this work. *Part 2*: Create at least 10 hyperlinked annotations that relate to and/or amplify specific aspects of the extract from *American Notes*; *Part 3*: Mount the page in the home directory of your

personal Web site, using the file name "kipling\_fragment\_1.html."  
Due July 16. (15 points)

**Assignment 8:** Create an HTML page that is effectively a portfolio of the work completed in LIS 2600 during the course of the term. Mount the page in the home directory of personal Web site, using the file name "portfolio\_mysurname.html" and link the portfolio to your WordPress blog Due July 30. (10 points)

(For the HTML/Web Design assignments, students have a choice of HTML composer/editors that may be employed for this assignment, including [Amaya](#) and [Kompozer](#). (There are other suitable open source editors, but [Amaya](#) and [Kompozer](#) are recommended because each runs on both Macs and PCs.) Those who want to invest in a copy of Adobe Dreamweaver are encouraged to do so -- Dreamweaver is arguably the best application in this category -- but the applications listed above, each of which is available free-of-charge, will suffice for the assignment. ***Under no circumstances should Microsoft Word be used in order to create HTML documents.***) Web sites must be built on the personal Web site that has been provided for this course at <http://basie.exp.sis.pitt.edu>. The Web service provided by the University's Computing Services and Systems Development (CSSD) division is an acceptable alternative, but it should be noted that troubleshooting problems with the personal Web site is comparatively limited, because it relies almost exclusively on the CSSD Help Desk.)

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## **Course Policies and Related University Policies:**

**Conduct of the Course:** Students are responsible for the assigned readings. Various types of documentation will support each unit and assignment, including podcasts, streaming video demonstrations, and tutorials. Two discussion boards, one for general questions and the other for technical issues, will be maintained on CourseWeb. Real-time discussions via Blackboard's Office Hours Chat application or WebEx will be conducted weekly, with each session recorded and

saved for future reference. The discussions will focus mainly on the current assignment and any issues arising from the assignment, but the real-time sessions will also afford the opportunity for students to raise other issues and questions.

**Participation:** Students are expected to participate fully. It is expected that each student will complete all of the required reading and viewing assignments.

**FastTrack Weekend:** Students are required to participate in the FastTrack weekend session on July 7th.

**Computer Accounts/Software:** Each student will be provided a WordPress instance and a personal Website, as well as individual accounts on instances of Koha and Omeka, respectively. The credentials for those accounts will be distributed via email. Students are also expected to establish personal accounts on several other services, including Google, Mendeley RefWorks, Screencast, and Zotero.

The Web browser is the key software component for this course. Instruction will assume that students are using the latest version of the [Google Chrome](#) or [Mozilla Firefox](#) browser.

**Technical Support:** Technical support is available through CSSD and its Help Desk for problems relating to access to the University's network and/or general problems associated with operating systems. Issues and questions that related specifically to the applications and systems used in the conduct of this course must be addressed through the Technical Issues Discussion Board on CourseWeb or email communication with the instructor, and not through the CSSD Help Desk, because CSSD does not support these applications and systems. Use of the discussion board is preferred, because it is much more efficient in the vast majority of cases.

**Online Chat Sessions:** Each week there will be an online discussion session. Although these synchronous sessions are intended mainly for online students enrolled in the course, they will be open to all students, and the sessions will be archived so that students who are unable to participate will be able to consult

transcripts of the discussions at a later date. The sessions will employ either Blackboard's Office Hours capability or WebEx, the Web conferencing solution to which the University subscribes.

**Student Conduct in E-mail and Discussion Groups:** It is important to write electronic messages or discussion board postings to your colleagues as if you were speaking to them face-to-face in class. You need to exercise online courtesy and respect to others in the class at all times.

**Late Assignments:** Assignments submitted after the due date without the prior knowledge and consent of the instructor will not be accepted for credit.

**Grading:** Grades are based on the extent to which submissions comply with the terms of the assignment, although qualitative judgments will inform how several assignments are assessed.

**Disabilities:** If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services, 216 William Pitt Union, (412) 648-7890 or (412) 383-7355 (TTY) as early as possible in the term.

**Academic Integrity:** For policies concerning academic integrity, please see <http://www.pitt.edu/info/ai1.html> and/or <http://www.ischool.pitt.edu/about/academic-integrity.php>.

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## Readings

(The University Library System maintains a subscription to Safari Tech Books Online, which is accessible under the databases section of "Find Articles" on the ULS Website. Safari Tech Books Online provides access to a wide array of books on aspects of computing, including the items noted below as readings for this course.)

## Introduction

Machtelt Garrels. [Introduction to Linux: a Hands on Guide](#). 2008. Chapters 2-3, 6.

Keir Thomas. [Ubuntu Pocket Guide and Reference](#). MacFreda Publishing, 2009. Chapters 4-5.

## Part 1

Amy Butros and Sally Taylor. [Managing Information: Evaluating and Selecting Citation Management Software; a Look at EndNote, RefWorks, Mendeley, and Zotero](#). Downloaded from the Woods Hole Open Access Server. Dated 2010; mounted 2011.

Daniel Cohen. [Creating Scholarly Tools and Resources for the Digital Ecosystem: Building Connections in the Zotero Project](#). *First Monday*, 13 (August 2008)  
<http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/2233/2017>

Ron Gilmour and Laura Cobus-Kuo. [Reference Management Software: a Comparative Analysis of Four Products](#). *Issues in Science and Technology Librarianship* 66 (Summer 2011).

Thomas Mead and Donna Berryman. [Reference and PDF-Manager Software: Complexities, Support and Workflow](#). *Medical Reference Services Quarterly* 29 (2010): 388-393.

Frank Norman. 2010. From Sci-Mate to Mendeley: a brief history of reference managers. [Internet]. [Cited 2011 Apr 18]. Available from <http://blogs.nature.com/franknorman/2010/06/08/this-is-an-edited-version>.

Yuji Tosaka. [Analyzing Library Metadata for Web-Based Metadata Reuse Services: A Case-Study Examination of WorldCat.org and RefWorks](#). *Journal of Library Metadata*. 4 (2010): 257-275.

Yingting Zhang. [Comparison of Select Reference Management Tools](#), *Medical Reference Services Quarterly* 31 (2012): 45-60



## Part 2

Jessica Neuman Beck and Matt Beck. *Wordpress: Visual QuickStart Guide*. 2nd edition. Peachpit Press, 2011. Chapters 2-12. (Safari Tech Books Online via ULS)

Angela Byron, Addison Berry, and Bruno De Bondt. *Using Drupal*. 2nd edition. O'Reilly Media, 2012. Section 1; Section 2, Part 1-4, 7. (Safari Tech Books Online via ULS)

Paul Thewlis. *WordPress 3 for Business Bloggers*. Packt Publishing, 2011. Chapters 3-6. (Safari Tech Books Online via ULS)

Lisa Sabin Wilson. *WordPress Web Design for Dummies*. For Dummies, 2011. Chapters 2-15. (Safari Tech Books Online via ULS)

## Part 3

Ricky Erway. [Lasting Impact: Sustainability of Disciplinary Repositories](#). OCLC, 2012.

Jason Kucsma, Kevin Reiss, and Angela Sidman. [Using Omeka to Build Digital Collections: The METRO Case Study](#). *D-Lib Magazine* 16 (March/April 2010).

[Understanding MARC Bibliographic Machine-Readable Cataloging](#). Written by Betty Furrie in conjunction with the Data Base Development Department of The Follett Software Company. Eighth edition reviewed and edited by the Network Development and MARC Standards Office, Library of Congress. Published by the Cataloging Distribution Service, Library of Congress, in collaboration with The Follett Software Company. See also [Understanding MARC Authority Records: Machine-Readable Cataloging](#). [The organization of this document and the generic descriptions of the MARC 21 formats are adapted from the publication, [Understanding MARC Bibliographic Machine-Readable Cataloging](#), which was originally prepared in 1988 by Betty Furrie, in conjunction with the Data Base Development Department of the Follett Software Company, and is

currently updated and maintained by the Library of Congress, Network Development and MARC Standards Office. All content about MARC 21 authority records was developed and written by the Library of Congress, Network Development and MARC Standards Office. Published by the Cataloging Distribution Service, Library of Congress.]; and [ANSI-NISO Z39.2: Information Interchange Format](#).

## Part 4

Elizabeth Castro. *EPUB Straight to the Point; Creating ebooks for the Apple iPad and other ereaders*. Peachpit Press, 2010. Chapters 1-3. (Safari Tech Books Online via ULS)

Ben Henrick. *HTML & CSS: the Good Parts*. O'Reilly Media, 2010. Chapters 2-12. (Safari Tech Books Online via ULS)

James Kelway. [Six Circles: an Experience Design Framework](#). 2012. [EPUB version](#).

Steven Schafer. *HTML, XHTML, and CSS Bible*. 5th edition. Wiley, 2010. Chapter 1-12, 17-20, 25-38. (Safari Tech Books Online via ULS)

