School of Information Sciences - University of Pittsburgh

LIS 2600: Introduction to Information Technology [Current as of: 08/24/2013]

Fall 2013

Class time: **Mondays 12:00pm – 2:50pm**
Location: **404 IS Building**

Instructor:

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CourseWeb URL: http://courseweb.pitt.edu

I. Course Description and Learning Objectives:

Information technologies primer: computers and key applications; networking and Internet applications; implications of future technological developments on libraries; web page authoring; use of Internet and networks to deliver library services; graphics and multimedia applications.

At the end of the course, the student will be able to:

- Understand and address the basic technologies and key issues associated with Web-based, end-user computing, particularly as they apply to information services
- Describe and assess key systems and technical standards for digital libraries and archives.
- Explain the design and functionality of library and archival systems and how design and function influence the delivery and quality of services.
- Explain how the design of library and archival systems influences organizational workflows.

- Identify standards and technologies on which the production and distribution of digital documents, including e-books, are based.
- Summarize issues arising from the presentation of various types of materials in digital formats, particularly as such issues pertain to design, usability, maintenance, and preservation.
- Produce Web-based artifacts using technologies underlying library and archival systems. These technologies include databases, bibliographic information management systems, Web servers, content management systems, markup languages, and style sheet.

II. CourseWeb Information:

CourseWeb is a Web-based system using BlackBoard software that facilitates course-related communication as well as distribution of course materials and grades. You can access CourseWeb at http://courseweb.pitt.edu . You must log in with your University Computer Account – this is the one that goes with your 'pitt.edu' e-mail address. If you do not have a Pitt account, please contact Computing Services (CSSD) at 412-624-HELP [4357] to find out how to get one. Course-related e-mail will be sent to your Pitt e-mail account. If you do not read e-mail on your Pitt account, you are responsible for forwarding any e-mail received on your Pitt account to the e-mail address that you use. See http://accounts.pitt.edu/ for information on managing your Pitt account and forwarding e-mail. If you have trouble logging in to CourseWeb, you may need to log in to the accounts website above to activate your Pitt e-mail account. Call 412-624-HELP with any problems relating to your account.

III. Recommended books and Readings

There is no required textbook for this class, but there will be about 3-4 required readings each week. You will publish your reading notes online at your own blog space before the required deadline. The notes can be informal in style – even bulleted lists can be used when appropriate, however, the response should clearly indicate the context, including the part of the text that triggered your questions. Do not summarize the readings. Instead, discuss your thoughts, ideas, and questions related to them.

Readings will generally be available either on the Web or via CourseWeb. I will communicate each week which readings are required both in class and on CourseWeb. Additional readings may be added as needed. You may need a PDF reader, such as Adobe Reader, to view most readings.

IV. Related Software download and online accounts

a. Software to be downloaded and installed

- Adobe Reader for reading PDF files. http://www.adobe.com/products/acrobat/readstep2.html
- Firefox browser. http://www.mozilla.com/en-US/firefox/all.html#languages
- Jing the free version. Jing is an always-ready program that instantly captures and shares images and video … from your computer to anywhere. http://www.jingproject.com/
- Lavasoft Ad-Aware the free version: http://lavasoft.com/products/ad_aware_free.php
- KompoZer. a complete web authoring system that combines web file management and easy-to-use WYSIWYG web page editing. http://kompozer.net/
- Skype. Skype created a little piece of software that makes communicating with people around the world easy and fun. http://about.skype.com/

- Zotero. [zoh-TAIR-oh] is a free, easy-to-use Firefox extension to help you collect, manage, and cite your research sources. It lives right where you do your work — in the web browser itself. http://www.zotero.org/
- Microsoft package, particularly Microsoft Access.

b. Accounts that need to be created

- Blogger.com
- Citeulike.org
- Flickr.com
- Google account
- Koha
- Refworks
- Screencast.com

V. Course Schedule

Week	Date	Topic
1	Aug 26	**Introduction and Course Overview** **Required Readings:** 1) OCLC report: Information Format Trends: Content, Not Containers (2004). http://www.oclc.org/reports/2004format.htm 2) Clifford Lynch, "Information Literacy and Information Technology Literacy: New Components in the Curriculum for a Digital Culture" www.cni.org/staff/cliffpubs/info_and_IT_literacy.pdf **Lab Activities**: Laptop Setup, Blogger Account, Locating Readings On/Off campus.
	Sep 2	**Labor day, no class**
2	Sep 9	**Computer Basics, Digitization** **Required Readings**: 1) Vaughan, J. (2005). Lied Library @ four years: technology never stands still. Library Hi Tech, 23(1), 34-49. At http://www.emeraldinsight.com/Insight/ViewContentServlet;jsessionid=C5A0E976F56F442F9919082BF1F79360?Filename=Published/EmeraldFullTextArticle/Articles/2380230105.html 2) Doreen Carvajal. European libraries face problems in digitalizing. New York Times. October 28, 2007 http://www.nytimes.com/2007/10/28/technology/28iht-LIBRARY29.1.8079170.html 3) A Few Thoughts on the Google Books Library Project http://connect.educause.edu/Library/EDUCAUSE+Quarterly/AFewThoug

		htsontheGoogleBo/46023 Background Readings: 4) IFLA GUIDELINES FOR DIGITIZATION PROJECTS (2002) http://archive.ifla.org/VII/s19/pubs/digit-guide.pdf **Lab Activities:** digitizing and ocr **Assignment 1 is out, and due on Sep 23** Digitization and Flickr
3	Sep 16	**Multimedia Representation and Storage** **Required Readings** 1) Data Compression. http://en.wikipedia.org/wiki/Data_compression 2) Data compression basics (long documents, but covers all basics and beyond): http://dvd-hq.info/data_compression_1.php 3) Edward A. Galloway, "Imaging Pittsburgh: Creating a shared gateway to digital image collections of the Pittsburgh region" First Monday 9:5 2004 http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1141/1061 4) Paula L. Webb, YouTube and libraries: It could be a beautiful relationship C&RL News, June 2007 Vol. 68, No. 6 http://www.ala.org/ala/mgrps/divs/acrl/publications/crlnews/2007/jun/youtube.cfm **Lab Activities:** Introduce Jing and pixlr **Note: Bring a microphone (external or imbedded) for testing Jing in the Lab session.** Download and install Jing from http://www.jingproject.com/. After the installation, you need to register an account at screencast.com. There will be a popup window asking you to do that. You will work with the TAs to learn how to use Jing and create a very short video about how to access PittCat in your browser
4	Sep 23	**Database Technologies and Applications** **Required Readings:** 1) Database. http://en.wikipedia.org/wiki/Database 2) Entity relationship model in database: http://en.wikipedia.org/wiki/Entity-relationship_model 3) database normalization process http://www.phlonx.com/resources/nf3/

		Lab Activities: Introduce Database System such as Microsoft Access **Assignment 2 is out and due on Oct 7** Database.
5	Sep 30	**Metadata and Content Management** **Required Readings:** 1) Anne J. Gilliland. Introduction to Metadata, pathways to Digital Information: 1: Setting the Stage http://www.getty.edu/research/conducting_research/standards/intrometadata/setting.html 2) Eric J. Miller. An Overview of the Dublin Core Data Model http://dublincore.org/1999/06/06-overview/ **3)** Julie Meloni. Using Mendeley for Research Management http://chronicle.com/blogs/profhacker/using-mendeley-for-research-management/25627 **Lab Activities**: Introducing Mendeley **Assignment 3 is out, due on Oct 21** Building bibliographic collections using Mendeley
6	Oct 7	**Computer Networks, Wireless Networks** **Required Readings**: 1) Local Area Network: http://en.wikipedia.org/wiki/Local_Area_Network 2) Computer network http://en.wikipedia.org/wiki/Computer_network 3) Coyle, K. (2005). Management of RFID in libraries. *Journal of Academic Librarianship, 31*(5), 486-489. **Lab Activities**: Check IP and MAC addresses on your computer, and learn FTP software FileZilla http://filezilla-project.org/
7	Oct 15 (note this is a Tuesday class)	**Internet and WWW Technologies**. **Required Readings**: 1) Tyson, Jeff. http://computer.howstuffworks.com/internet-infrastructure.htm/printable 2) Andrew K. Pace "Dismantling Integrated Library Systems" Library Journal, vol 129 Issue 2, p34-36. 2/1/2004 http://www.libraryjournal.com/article/CA374953.html 3) Sergey Brin and Larry Page: Inside the Google machine. http://www.ted.com/index.php/talks/sergey_brin_and_larry_page_on_google.html **Lab Activities**: Introducing Koha

		Assignment 4 is out, due on Oct 28 Koha ILS
8	Oct 21	**HTML and Web Authoring Software (Zhen Yue)** **Required Readings**: 1) W3schools HTML Tutorial: http://www.w3schools.com/HTML/ 2) HTML Cheatsheet http://www.wired.com/images/multimedia/webmonkeycheatsheet_full.pdf 3) Pratter, F.E. (2011) Introduction to HTML, Chapter 2 of Web Development With SAS by Example, 3rd Edition (Google Book) http://books.google.com/books?id=l_MFZYMv3YgC&pg=PA15&lpg=PA15&dq=introduction+to+html+pratter&source=bl&ots=nXRgMFYZHz&sig=muV0UY1c_ePZO1pcdu8_V_IdbwQ&hl=en&sa=X&ei=Mvs4ULG9O4Gf6QG8h4GICw&ved=0CC0Q6AEwAA#v=onepage&q=introduction%20to%20html%20pratter&f=false 4) Goans, D., Leach, G., & Vogel, T. M. (2006). Beyond HTML: Developing and re-imagining library web guides in a content management system. *Library Hi Tech, 24*(1), 29-53. **Lab Activities**: Writing simple HTML pages
9	Oct 28	**Cascading Style Sheet (I-Ling Cheng)** **Required Readings**: 1) W3 School Cascading Style Sheet Tutorial: http://www.w3schools.com/css/ 2) CSS tutorial: starting with HTML + CSS http://www.w3.org/Style/Examples/011/firstcss 3) chapter 2 of the book *Cascading Style Sheets, designing for the Web,* by Håkon Wium Lie and Bert Bos (2nd edition, 1999, Addison Wesley, ISBN 0-201-59625-3) http://www.w3.org/Style/LieBos2e/enter/ **Lab Activities:** Experience using CSS with HTML **Assignment 5 is out, due on Nov 18** HTML Authoring: My 2600 Page
	Nov 4	**no class, instructors travel for conferences**
10	Nov 11	**XML** **Required Readings** 1) Martin Bryan. Introducing the Extensible Markup Language (XML)

		http://burks.bton.ac.uk/burks/internet/web/xmlintro.htm 2) Uche Ogbuji. A survey of XML standards: Part 1. January 2004. http://www-128.ibm.com/developerworks/xml/library/x-stand1.html 3) Extending you Markup: a XML tutorial by Andre Bergholz http://www.computer.org/portal/web/csdl/abs/mags/ic/2000/04/w4074abs.htm 4) XML Schema Tutorial http://www.w3schools.com/Schema/default.asp **Lab Activities:** XML in metadata schemas
11	Nov 18	**Digital Library, Web Search** **Required Readings** 1) Paepcke, A. et al. (July/August 2005). Dewey meets Turing: librarians, computer scientists and the digital libraries initiative. D-Lib Magazine. 11(7/8). http://www.dlib.org/dlib/july05/paepcke/07paepcke.html 2) Lynch, Clifford A. "Institutional Repositories: Essential Infrastructure for Scholarship in the Digital Age" *ARL*, no. 226 (February 2003): 1-7. http://www.arl.org/bm~doc/br226ir.pdf 3) David Hawking , Web Search Engines: Part 1 and Part 2 IEEE Computer, June 2006. http://www.computer.org/portal/web/csdl/doi/10.1109/MC.2006.213 and http://www.computer.org/portal/web/csdl/doi/10.1109/MC.2006.286 4) Shreeves, S. L., Habing, T. O., Hagedorn, K., & Young, J. A. (2005). Current developments and future trends for the OAI protocol for metadata harvesting. *Library Trends, 53*(4), 576-589. **Interesting Readings** 5) http://searchenginewatch.com/article/2064539/How-Search-Engines-Rank-Web-Pages **Lab Activities:** Advance Searches in Web of Science, introduce DSpace system **Assignment 6 is out, due on Dec 2** DSpace
12	Nov 25	**Social Software and Library 2.0** **Required Readings**: 1) John Blossom (2009). What makes social media tick: seven secrets of social media. Content Nation, chapter 2. Wiley Publishing Inc. http://www.contentnation.com/wiki/chapter-2-what-makes-social-media-tick-seven-secrets-of-social-media 2) Charles Allan, "Using a wiki to manage a library instruction program: Sharing knowledge to better serve patrons, C&RL News, April 2007 Vol. 68, No. 4 http://www.ala.org/ala/mgrps/divs/acrl/publications/crlnews/2007/apr/usin

		gawiki.cfm 3) Xan Arch, "Creating the academic library folksonomy: Put social tagging to work at your institution" C&RL News, February 2007 Vol. 68, No. 2 http://www.ala.org/ala/mgrps/divs/acrl/publications/crlnews/2007/feb/libraryfolksonomy.cfm 4) Jimmy Wales: "How a ragtag band created Wikipedia" http://www.ted.com/index.php/talks/jimmy_wales_on_the_birth_of_wikipedia.html **Lab Activities:** Writing and Editing Wiki pages
13	Dec 2	**IT Issues: Security and Privacy (Guest Lecture by Lisa Nelson@GSPIA)** **Required Readings:** 1) The Privacy Show at On the Media: http://www.onthemedia.org/story/258658-the-privacy-show/ 2) MyTurn: Protecting privacy rights in libraries, By Judah Hamer • September 24, 2008 http://greatlibrarynews.blogspot.com/2008/09/myturn-protecting-privacy-rights-in.html 3) Try out Immersion, see how important metadata is for privacy. http://techchronic.blogspot.in/2013/07/have-gmail-account-see-what-nsa-knows.html **Lab Activities:** online privacy, facebook
14	Dec 9	**Organizational Computing, Cloud Computing, and the Future** **Required Readings:** 1) Galen Gruman. "What cloud computing really means" InfoWorld, April 2008. http://www.infoworld.com/article/08/04/07/15FE-cloud-computing-reality_1.html 2) Explaining Cloud Computing http://www.youtube.com/watch?v=hplXnFUlPmg&NR=1 3) Thomas Frey. The Future of Libraries: Beginning the Great Transformation http://www.davinciinstitute.com/page.php?ID=120 Why Some Startups Say the Cloud Is a Waste of Money http://www.wired.com/wiredenterprise/2013/08/memsql-and-amazon/ http://www.pewinternet.org/Static-Pages/Trend-Data-%28Adults%29/Internet-Adoption.aspx

VI. Assessment

Participation 40%

The participation in this course is assessed by students' activities. The graded activities include:

- Each week before the class starts, the students need to submit their notes on required readings for that week. The notes should be posted in the students' blog space (how to open a blog is discussed in class 1). The deadline for posting the reading notes is Friday evening before the class (i.e., Week 2 Friday evening post Week 3 class readings). Each reading note will count 2% in the final score. Maximum 10 reading notes will be counted.
- After each week's class, students will have a chance to raise one muddiest point, which is the most vague or unclear topic discussed in that week's class that students want to have more input from either peer students or the instructor. The deadline for posting the muddiest is Friday evening after the class (Week 2 Friday evening post Week 2 class muddiest points). Each comment/answer contributes 1.5% to the final score. Maximum 10 will be counted.
- There will be 5% for class participation.

Assignment 60%

There are total six assignments, each of which will count 10% in the final course score. You are required to make a clear presentation about your ideas, and the essay should be about one or two pages.

The deadline of submitting each assignment is before 12pm of the due date. Each 24 hours delay will have 40% deduction of the maximal score. No submission later than 2 days will be accepted except in the case of emergencies and personal disasters.

Course Grading Scale:

The final grade depends on the percentage of points you have earned, and the definition of letter grades is:

- 90 <= A- < 93, 93 < A <= 100
- 80 <= B- < 83, 83 < B <= 87, 87 < B+ < 90
- 70 <= C- < 73, 73 < C <= 77, 77 < C+ < 80
- 60 <= D < 70,
- F < 60

VII. Course Policies

Plagiarism

It is expected that the work you submit in this course will be your own. While collaboration is allowed for the course project, it should be approved in advance and the nature of each contribution should be specified in the project proposal and the final submission.

The following statement is taken from *The Teaching Assistant Experience: A Handbook for Teaching Assistants and Teaching Fellows at the University of Pittsburgh* (A.P. Haley and J.M. Nicoll, eds.)]

> Plagiarism means submitting work as your own that is someone else's. For example, copying material from a book or other source without acknowledging that the works or ideas are someone else's and not your own is plagiarism. If you copy an author's words exactly, treat the passage as a direct quotation and supply the appropriate citation. If you use someone else's ideas, even if you paraphrase the wording, appropriate credit should be given. You have committed plagiarism if you purchase a term paper or submit a paper as your own that you did not write[1].
>
> Plagiarism is a violation of the University of Pittsburgh's standards on academic honesty, and violations of this policy are taken seriously. **From the *Guidelines on Academic Integrity: Student and Faculty Obligations and Hearing Procedures* (effective September, 1995):**

A student has an obligation to exhibit honesty, and to respect the ethical standards of the historical profession in carrying out his or her academic assignments. Without limiting the application of this principle, a student may be found to have violated this obligation if he or she:

- Presents as one's own, for academic evaluation, the ideas, representations, or words of another person or persons without customary and proper acknowledgment of sources.
- Submits the work of another person in a manner which represents the work to be one's own. [Quotation ellipsed.] [2]

Special Needs

Students with disabilities who require special accommodations or other classroom modifications should notify the instructor and the University's Office of Disability Resources & Services (DRS) no later than the 2nd week of the term. Students may be asked to provide documentation of their disability to determine the appropriateness of the request. DRS is located in 216 William Pitt Union and can be contacted at 648-7890 (Voice), 624-3346(Fax), and 383-7355(TTY). Students who must miss an exam or class due to religious observances must notify the instructor ahead of time and make alternative arrangements.

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[1] B. G. Davis, *Tools for Teaching* (San Francisco: Jossey-Bass, 1993), 300.

[2] University of Pittsburgh, *Guidelines on Academic Integrity: Student and Faculty Obligations and Hearing Procedures* (Pittsburgh: University of Pittsburgh, 1995), 7-8.