

**The Catholic University of America
School of Library and Information Science
LSC 555 Information Systems in Library and Information Centers**

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Office Hours: Tuesday 2:00 - 4:00 PM, and by appointment. I will also be available before and after the class meeting.

Class meetings: Sat 1:30 – 4:00 PM (Location: Pangborn 301)

Table of contents

Course Description, Goals, Learning objectives, instructional methods	p.1
Course Structure (modules)	p.2
Course Materials (textbook info.) and required technologies	p.3
Course Grading	p.3
Course Schedule with readings and work due	p.4
Course Policies – late policy, academic honesty policy	p.6
ADA Accommodation	p.8

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Course Description

This course introduces students to the evolving role of information systems in the storage and retrieval of information. Students explore how information technology in libraries, archives and information centers, and on the World Wide Web facilitates interaction with information.

Course Goals

This course is designed to:

- Introduce students to applicable theory, principles, and standards;
- Explore the capabilities and functions of several classes of information systems, including established technology like Integrated Library Systems and databases as well as evolving social and collaborative environments;
- Introduce essential technology elements (hardware, software, networking, etc.);
- Introduce practical information technology skills used by information professionals, such as working with databases and creating and publishing web pages; and
- Promote critical thinking, problem solving and collaborative teamwork abilities for working with information technology.

Goals for Student Learning

At the conclusion of this course, students will be able to:

1. Explain the role and functions of computer-based information systems in libraries or information centers or on the web.

2. Describe fundamental computer and communications technology principles and trends applicable to libraries, archives or other information centers.
3. Describe important human and technological issues in the electronic environment.
4. Employ systems analysis and human-computer interaction frameworks to analyze the design and operation of information systems in libraries or information centers or on the web.
5. Demonstrate basic skills in selected current technologies (such as database management systems (DBMS), HTML, wikis, or blogs) to organize and disseminate information.
6. Articulate the importance of, and strategies for, professional development and continuous learning about information technology in LIS.

Instructional Methods

This course uses a variety of instructional methods and activities:

- Lecture and discussion based on the readings.
- Small group discussions and paired critiques of work products.
- Hands-on exercises for skills development.
- A team project, including student presentation and critique.
- Collaborative learning - You will learn from each other by sharing experiences, knowledge and skills.
- Feedback to and from the instructor.

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Course Overall Structure (Modules)

Below are main broad modules of the course. The introduction module deals with information concepts, systems concepts, and impacts of technology and systems in library environments. The Information Systems module investigates selected information systems that are relevant to the LIS field and LIS professionals. The technology foundation module covers important components of LIS related information systems as well as any information system. The techniques for system development focus on ways of planning, analyzing, and developing information systems. The advanced Web module introduces basic Web design principles, CSS, and XML. In the final module, we wrap up the course, with project presentations, course review, etc.:

<i>Module</i>	<i>Date</i>	<i>Topics</i>
Introduction	1 (9/5)	Introduction to the course
	2 (9/12)	*HTML Basics (Class meeting at 208 Marist Hall)
Information systems	3(9/19)	Information search and retrieval systems
	4 (9/26)	Information systems (digital libraries, Web portal)
	5 (10/3)	Library information systems - ILS
Technology foundation	6 (10/10)	Computer hardware and storage, software
	7 (10/17)	Networks, Internet, Web technologies (Web 2.0)
	8(10/24)	Data representation (Databases)
Techniques for system development and analysis	9 (10/31)	System Development
	10 (11/7)	Usability
Advanced Web	11 (11/14)	Web design, CSS

	12 (11/21)	XML
	13 (11/28)	Thanksgiving Break (No class)
Wrap-up	14 (12/5)	Social Issues, Technology trends, Course overview
	15 (12/12)	Group project presentation & course evaluations
	16 (12/19)	Portfolio with reflective essay Submission

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Course Materials:

No textbook required.

Optional supplemental Texts

Stair, R., Reynolds, G. (2008) Fundamentals of Information Systems. Fourth ed. Boston: Thomson Course Technology. (ISBN 1-4239-0113-4)

Stair, R., Reynolds, G. (2009) Principles of Information Systems. Ninth ed. Boston: Thomson Course Technology.

Some other books about computers are available via CUA libraries.

Kochtanek T.R., Matthews J.R. (2002) Library Information Systems. Westport, CT: Libraries Unlimited. (ISBN 1591580188)

(The books mentioned are available from me. You can borrow it from me.)

Required Technologies

The following technologies are taught as an essential part of this course or required for course delivery:

- Basic HTML
- Publishing a web page to the CUA Personal Web Site
- Use of collaborative tools (a blog and wiki) for shared content development and collaborative activity
- Exploration of relational database concepts using Microsoft Access

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Grading:

Grades will be based on the following (subject to minor adjustment):

(Note: An instruction and details of each assignment will be handed in class and be available on a course BB site.)

Supporting learning objectives	Requirements	Contribution to Grade
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#1, #2,	Individual research paper about a chosen topic of technological aspects and its impact on LIS	15%
#4	Evaluation of IR systems	10%
#5	Blogging (5 postings.)	10%
#5, #6	Final e-portfolio with reflective essay	15%
#3, #4	Group project	25%
#3, #5	Two homework 1. Web page creation on CUA server (10%) 2. Interface evaluation (10%)	20%
	Class attendance (One class miss is allowed. Additional misses will be penalized with 2% deduction out of 5%.	5%

Final grades will be determined by the following scale:

- A: 94 – 100 A-: 90 -93.99
- B+: 86-89.99 B: 82-85.99 B-: 78-81.99
- C: 70-77.99 F: Below 70

Note:

1. Detailed information of assignments and projects will be distributed in class or available on Blackboard (<http://bb8.cua.edu>)
2. Please consult below in the section “Participation and conduct” for other course policies

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Course Schedule

This schedule and syllabus is subject to change depending on class needs. Sometimes, additional suggested readings may be added or announced in class.

Date	Topics/Activities/	Readings	Work Due
1 (9/5)	*Information concepts (Information life cycle) & tools and techniques to manage information and information services in library environments. *System concepts *Introduction to information systems	*Kochtanel and Matthews (2002). Ch.1. The evolution of LIS and enabling technologies. In <i>Library Information Systems</i> , pp. 3- 12 (Available on BB site). *Arnold Hirshon (2008). Environmental scan: A report on trends and technologies affecting libraries. Full-text Available at: http://www3.nelinet.net/system/files/environ2.pdf *Vaughan, J. (2005). Lied Library @ four years: technology never stands still. <i>Library Hi Tech</i> , 23(1), 34-49. (available via Emerald database) *Information system. (2009). In Encyclopædia Britannica. http://www.search.eb.com/eb/article-218058 (Read pages 1-13. You can access this via ALADIN. Go to http://libraries.cua.edu . Under Article Databases & More, select Encyclopedias and Dictionaries, then look for Encyclopedia Britannica Online.)	
2 (9/12)	*HTML Basics (Class meeting at 208 Marist Hall)	HTML tutorial http://www.w3schools.com/html/DEFAULT.asp Make an HTML Document http://www.webmonkey.com/tutorial/Make_an_HTML	First essay

		<p>Document Introduction to HTML http://www.infopeople.org/resources/webhtml/</p>	
3 (9/19)	Information Retrieval systems	<p>The Seven ages of information retrieval http://archive.ifla.org/Vl/5/op/udtop5/udtop5.htm C. N. Mooers (1960). "Mooers' Law or, Why Some Retrieval Systems Are Used and Others Are Not. <i>Bulletin of the American Society for Information Science and Technology</i>, 1996 vol:23 iss:1 (via ProQuest database) M. Cutts (2005). "How Does Google Collect and Rank Results?" <i>Google's Newsletter for Librarians</i>. http://www.google.com/librariancenter/articles/0512_01.html Power searching for anyone: http://searchenginewatch.com/2156031 Basic search tools chart http://www.infopeople.org/search/chart.html K. Antelman, E. Lynema, A. K. Pace (2006). "Toward a Twenty-First Century Library Catalog". <i>Information Technology & Libraries</i>, 25:3.</p>	
4 (9/26)	Information systems (digital libraries and other systems)	<p>G. Marchionini (1998). Research and development in digital libraries. <i>Encyclopedia of Library and Information Science</i>. J. Frumkin (2004). "Defining Digital Libraries." <i>OCLC Systems & Services</i> 20 (4), 155-156. M. Keller, V. Reich, A. Herkovic (2003). What is a library anymore, anyway?. <i>First Monday</i>. (http://131.193.153.231/www/issues/issue8_5/keller/index.html) Michael K. Bergman, "The Deep Web: Surfacing Hidden Value" http://www.press.umich.edu/jep/07-01/bergman.html</p>	Creating a HTML document on CUA server
5 (10/3)	Integrated Library systems	<p>M. Deddins (2002). "Overview of ILS" <i>EDUCAUSE</i> http://net.educause.edu/ir/library/pdf/DEC0201.pdf A. Pace (2004). "Dismantling Integrated Library Systems" <i>Library Journal</i>. http://www.libraryjournal.com/article/CA374953.html M. Breeding (2005). "Re-Integrating the integrated library system" <i>Computers in Libraries</i>: 25(25). S. Taylor (2003). "A quick guide to ...Z39.50". <i>Interlending and Document Supply</i>, 31(1): 25-30 (via Emerald database)</p>	
6 (10/10)	Computer hardware, storage, and software	<p>Computer History Museum (2006). Explore Timeline of Computer History (esp. the Computers category from 1944 on). http://www.computerhistory.org/timeline/ From Wikipedia: Computer Software http://en.wikipedia.org/wiki/Computer_software</p>	Evaluation of OPACs
7 (10/17)	Networks, Internet, and Web technologies (Web 2.0)	<p>J. Fisher, R Wang (2001). "Wireless Networking Primer: Introduction to Networks" http://www.pdamd.com/vertical/features/wireless_1.xm! B. Mitchell. What is Wireless Networking?</p>	

		http://compnetworking.about.com/cs/wireless/f/whatiswireless.htm How internet infrastructure works: http://computer.howstuffworks.com/internet-infrastructure.htm/printable T. O'Reilly (2005) What is Web 2.0. http://oreilly.com/web2/archive/what-is-web-20.html P. McFedries (2006) "The Web, Take Two." <i>IEEE Spectrum</i> , p. 68. P. Miller (2006) "Coming Together around Library 2.0." <i>D-Lib Magazine</i> 12(4). http://www.dlib.org/dlib/april06/miller/04miller.html	
8 (10/24)	Data representation (Databases)	P. Tero (2004). "Introduction to Databases" <i>Digital Web Magazine</i> http://www.digital-web.com/articles/introduction_to_databases/	
9 (10/31)	Information system development	Chapters 1, 4 and 7 in: L. Osborne, M. Nakamura (2000). <i>Systems Analysis for Librarians and Information Professionals</i> , 2nd ed. Westport, CT: Libraries Unlimited. (Available on BB site) C. Abras, D. Maloney-Krichmar, J. Preece (2004). User-Centered Design. <i>Encyclopedia of Human-Computer Interaction</i> . Thousand Oaks: Sage Publications. (also draft is available at http://www.ifsm.umbc.edu/~preece/Papers/User-centered_design_encyclopedia_chapter.pdf	Research paper due
10 (11/7)	Usability	Wikipedia (2008). Human-computer interaction. (Read through "Design Methodologies") http://en.wikipedia.org/wiki/Human%E2%80%93computer_interaction J. Nielsen (2005). Ten Usability Heuristics. <i>Useit.com</i> . http://www.useit.com/papers/heuristic/heuristic_list.html	
11 (11/14)	Web design, CSS	B. Tognazinni (2005). 10 Most Wanted Design Bugs. <i>Ask TOG</i> . http://www.asktog.com/Bughouse/10MostWantedDesignBugs.html The 10 most violated homepage design guidelines http://www.useit.com/alertbox/20031110.html First principles of interaction design http://www.asktog.com/basics/firstPrinciples.html	
12 (11/21)	XML	Kyle Banerjee (2002) How Does XML Help Libraries? <i>Computers in Libraries</i> , 22(2) http://www.infotoday.com/cilmag/sep02/Banerjee.htm XML tutorial http://www.w3schools.com/xml/default.asp	Interface evaluation
13 (11/28)	Thanksgiving Break (No class)		
14 (12/5)	*Wrap-up: Social Issues, Technology trends, Course overview	H. Varian (2005). "Universal Access to Information" <i>Communications of the ACM</i> : 48(10). Copyright Questions http://www.cyberbee.com/copyrt.html Coombs, K. A. Protecting User Privacy in the Age of	

		Digital Libraries. <i>Computers in Libraries</i> v. 25 no. 6 (June 2005) pp. 16-20 Paul Sturges et al. (2003) User privacy in the digital library environment: an investigation of policies and preparedness. <i>Library management</i> , 24(1/2). pp. 44-50.	
15 (12/12)	Group project presentation & course evaluations		Group project submission
16 (12/19)	Portfolio with reflective essay Submission		E-portfolio submission

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Course Policies and Procedures:

Formatting of your assignments.

- I prefer electronic submission of your assignment via course BB site Dropbox (<http://bb8.cua.edu>)
- For hard copy work, securely fasten together any papers that are more than 1 page.
- Place your name and the assignment number on the first page.
- Minimum margins are 1 ¼" left and 1" top, bottom, and 1 ¼" right.
- Use double-spaced line spacing, or space and a half, not single-spaced.
- Submitted work must have a professional appearance and not be handwritten.
- Any work submitted with numerous ungrammaticalities will be penalized.

Participation & Conduct:

- *Attendance is mandatory.* Attendance is required, in keeping with university policy. Students may miss up to 3 classes without a penalty. Additional miss will be penalized.
- *Late work.* Assignments are due at the start of class. Assignments turned in after the due time without prior approval will be penalized 10% for each 24-hour period that it is late. Assignments that are over 3 days late will NOT be accepted unless arrangements have been made with me. I encourage you to consult with me any special circumstances that will affect your ability to perform your assignments or turn in your assignments on time.
- *No makeup work.*
- *Arrive on time.*
- *Behave respectfully.* Students are expected to behave respectfully while in class.
- *No grade discussions in class.* Instructors will not discuss grades in class. First consider why the instructors deducted points. If you still disagree, explain your disagreement in an e-mail to the instructors.

Late Policy

Assignments are due at the start of class. Assignments turned in after the due time without prior approval will be penalized 10% for each 24-hour period that it is late. Assignments that are over 3 days late will NOT be accepted unless arrangements have been made with me. I encourage you to

consult with me any special circumstances that will affect your ability to perform your assignments or turn in your assignments on time.

Academic Honesty Policy:

Please read the policy on relevant information on academic honest found in the University's Online Student Handbook at: <http://studentlife.cua.edu/studenthandbook.pdf> and on the website for the University's Policies & Procedures at: <http://policies.cua.edu>. It is expected that all students will adhere to accepted codes of ethical, personal, and civil conduct while in this class and conversing online, using e-mail, or engaging in any online chat sessions. Failure to abide by such codes of conduct and etiquette may result in withdrawal from the course and a failing grade.

Academic dishonesty is defined in the *Handbook* as "failure to observe rules of fairness in taking exams or writing papers, plagiarism, fabrication, and cheating". Any incidence of plagiarism will result in a grade of F (0 points) on the project or exam in question, and will be reported to the Dean of the School of Library and Information Science for possible further action (including failure in the course).

Plagiarism will not be tolerated. Catholic University of America defines plagiarism to include::
"Intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise"

"Failure to attribute any of the following: quotations, paraphrases, or borrowed information from print sources or web sites"

"Buying completed papers from other to use as one's own work",

For more on what constitutes plagiarism and how to avoid it, see the guide on the Purdue [Online Writing Lab](http://owl.english.purdue.edu/handouts/research/r_plagiar.html) web site at: http://owl.english.purdue.edu/handouts/research/r_plagiar.html.

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ADA Accommodation:

Students with disabilities requiring accommodation under federal regulations must present a written accommodation request to the instructor by the second class meeting. It is strongly recommended that the student contact the Office of Disability Support Services, Suite 207, Pryzbyla Center (202-319-5211; email cua-disabilityservices@cua.edu, web <http://disabilitysupport.cua.edu/>). This is the University office responsible for disability accommodation and services, and its staff can answer questions about services and requirements regarding documentation. Special accommodations or other arrangements cannot be made without documentation approved by this office.

Syllabus changes:

- The instructors reserve the right to make changes to this syllabus if circumstances warrant such change. All changes will be provided to students in writing.