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 vocabulary, concepts, theories, principles, and standards related to library and information systems, the Internet and the World Wide Web;
- 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 should achieve six learning objectives. These
objectives are shown in the following table along with their relationship to SLIS Program Objectives.

<table>
<thead>
<tr>
<th>Goals for Student Learning (Learning Objectives)</th>
<th>Related SLIS Program Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Critically evaluate the role and functions of computer-based information systems in libraries or information centers or on the web.</td>
<td>1. Are skilled in organizing, disseminating, managing, preserving information; 2. Are skilled in the use of information technologies and articulate the role of information technology in facilitating information management; 4. Are capable of serving information seekers in a global society;</td>
</tr>
<tr>
<td>2. Describe fundamental computer and communications technology principles and trends applicable to libraries, archives or other information centers.</td>
<td>2. Are skilled in the use of information technologies and articulate the role of information technology in facilitating information management;</td>
</tr>
<tr>
<td>3. Describe human and technological issues that impact effective interaction within the electronic environment.</td>
<td>2. Are skilled in the use of information technologies and articulate the role of information technology in facilitating information management; 4. Are capable of serving information seekers in a global society;</td>
</tr>
<tr>
<td>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.</td>
<td>1. Are skilled in organizing, disseminating, managing, preserving information; 2. Are skilled in the use of information technologies and articulate the role of information technology in facilitating information management; 4. Are capable of serving information seekers in a global society;</td>
</tr>
<tr>
<td>5. Demonstrate basic skills in selected current technologies (such as database management systems (DBMS), HTML, wikis, or blogs) to organize and disseminate information.</td>
<td>1. Are skilled in organizing, disseminating, managing, preserving information; 2. Are skilled in the use of information technologies and articulate the role of information technology in facilitating information management; 4. Are capable of serving information seekers in a global society;</td>
</tr>
</tbody>
</table>
Instructional Methods

This is a blended course. Course activities are conducted face-to-face (in class) and online (using the BlackBoard learning management system, wikis, and other tools). This reduces the number of face-to-face meetings and provides students additional flexibility in how they use their time compared to traditional courses.

Research and experience shows that blended courses place more responsibility on the student for managing their own learning. Time management skills are critical. It is also important that students take the initiative to communicate with the instructor and other students.

Students are expected to be online frequently. If you do not have daily access to the Internet, you must contact the instructor by the first day of the semester.

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. In-class and online feedback is an integral part of the learning and assessment process for both the student and the instructor.

Course Structure

There are four broad modules of the course. The Frameworks module focuses on two ways of thinking about information systems. We will use these as touchstones throughout the course. The Information Systems module investigates selected information systems that are relevant to the LIS field and LIS professionals. The Building Blocks module
covers important components of any information system. In the final module, we wrap up the course, with project presentations, course review, etc.:

<table>
<thead>
<tr>
<th>Framework</th>
<th>Two important ways that we think about and analyze information systems.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Systems</td>
<td>Selected information systems to be investigated in this course.</td>
</tr>
<tr>
<td>Building Blocks</td>
<td>Essential technology elements of all information systems</td>
</tr>
</tbody>
</table>

**Wrap-Up**

**Course Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Meeting Date</th>
<th>Topics &amp; Activities</th>
<th>Major Assignments</th>
</tr>
</thead>
</table>
| 1    | 5/30         | *In-person class sessions in gray*  
[Framework] Introductions and overview. Structure of the course. Course themes & requirements. Information systems.
Introduce Team Project; form groups
HTML lesson with Joan Weeks 1-4 pm in lab; HTML exercise | Begin personal wiki page; Complete the SLIS Technology Survey |
| 2    | 6/6          | *Online class session*  
Develop strategy for team project | HW1- Assessment only due; HW2 intro only; wiki page shared with class; |
| 3    | 6/13         | [Building Blocks] Representation & management of information: Files, databases, SQL: Read about Access database and review Northwinds exercise | HW1a- HTML due; Project plan due for team project |
Team project discussion as needed  
Northwinds exercise in class | HW2 due |
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>6/27</td>
<td><strong>[Building Blocks]</strong> Computer systems: Hardware, software, storage.</td>
<td>PC checklist due; Team Project part 1 due; post write up on wiki; Network exercise w/ Google Docs</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>[Building Blocks]</strong> Telecommunications &amp; computer networks</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Read about HW3</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7/18</td>
<td><strong>[Information Systems]</strong> Information Retrieval Systems. … Using and evaluating IR systems.</td>
<td>Team project part 2 due; HW2a due;</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>[Building Blocks]</strong> Representation &amp; management of information: metadata readings and review exercise.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>7/25</td>
<td><strong>[Information Systems]</strong> Library Information Systems.</td>
<td>Voyager exercise</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>[Building Blocks]</strong> Metadata exercise</td>
<td>Discuss team project as needed; Complete metadata exercise in class</td>
</tr>
<tr>
<td>9</td>
<td>8/1</td>
<td><strong>[Information Systems]</strong> Web 2.0: Wikis, blogs and more. Systems librarianship.</td>
<td>Team project part 3 due</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prepare presentations</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>8/8</td>
<td><strong>[Wrap-Up]</strong> Social Issues in IT. Technology trends. Group brainstorming exercise.</td>
<td>Oral presentations; Complete project due</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>[Wrap-Up]</strong> Course review. Team project work session</td>
<td>Final portfolio due</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>[Wrap-Up]</strong> Team project presentations</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Readings are to be read before class. This schedule and syllabus is subject to change depending on class needs.

**Required Course Text**
No required text.
Optional Course Texts
Several students have highly recommended this book. A straightforward, building block (the author's words) approach to HTML. Very visual. This text is also the text for LSC 610.


Although this text is somewhat outdated, it covers some material specific to libraries.

A bit more in-depth, and discusses a broader range of Web-related topics.

Required Technologies

The following capabilities are required for course delivery:

- Standard CUA software
- Microsoft Access

The following technologies are taught as an essential part of this course:

- Basic HTML
- Publishing a web page to the CUA Personal Web Site
- Use of a wiki for shared content development and collaborative activity
- Exploration of relational database concepts using Microsoft Access
- Awareness of benefits of XML for encoding data

Readings

<table>
<thead>
<tr>
<th>Week 1</th>
</tr>
</thead>
</table>

**Introductions**

- Read syllabus topics, assignments, schedule, Basic Skills Needed, and course policies.
- SLIS resources and lab schedule
- CPIT Getting Started

**Information and Systems**

- 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 Brittanica Online.)

Technology readings/resources

- Eight Minute HTML

Human-computer Interaction. Users and Usability

- Wikipedia (2008). Human-computer interaction. (Read through "Design Methodologies")

Week 2

Digital Libraries and Archives

- Explore the National Archives’ Access to Archival Databases web site and The September 11 Digital Archive.

Week 3

Representation & management of information: Files, databases, SQL.

- Database Tutorial dot@mac
### Week 4

**Systems development lifecycle. Systems Analysis. User-Centered Design**

- [Data flow diagram](wikipedia.org) (optional)

### Week 5

**Telecommunications and Computer Networks**

- AHK and Assoc. (2002). Download Speeds and Conversion Table
- B. Mitchell. *What is Wireless Networking?* about.com
- B. Mitchell. *Wired vs Wireless Networking* about.com

**Computer Systems: Hardware, software, storage**

- From WikiPedia: [Computer Hardware](Computer Hardware), [Computer Software](Computer Software), [Data Storage](Data Storage), [Telecommunications](Telecommunications), [Software Licensing](Software Licensing), [Cloud computing](Cloud computing)
Week 6

Information Retrieval Systems


Week 7

Representation & management of information: metadata

- S. Taylor (. "A quick guide to …Z39.50"

Topic readings Technology readings/resources


Week 8

Library Information Systems

- M. Deddins (2002). "Overview of ILS" EDUCAUSE
### Week 9 Systems Librarianship and Web 2.0


### Web 2.0


### Week 10

#### Social Issues

- U.S Copyright Office (2006). *Fair Use*
- *Copyright Questions* cyberbee.com

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**COURSE REQUIREMENTS AND ASSESSMENT**

**Basic Skills Needed**
Although there are no course prerequisites for this class, you will need to have a basic set of skills to succeed. For example, you must be able to:

- Navigate the web and conduct basic web searches. Save a web page to local computer. Access a web page by entering its URL directly into the web browser.
- Use basic features of Windows XP, such as the Start menu and other program menus, cut-and-paste, moving files between folders and external media like a USB drive.
- Log in to the CUA network (via Windows XP) and the Home@CUA web-based system.
- Send and receive email using the CUA email system.
- Use ALADIN to find books and articles
- Access this course on the wiki and BlackBoard/Sakai, view this syllabus and related information available, and post a personal introduction on the BB discussion list.
- Post to a web-based discussion forum.
- Create a Microsoft Word or PowerPoint document and apply basic formatting such as fonts, font sizes and color.

You also need regular access to the Internet (i.e., at least every other day).

If you do not feel confident of your mastery of these skills, don’t panic. Instead, contact me before the course starts. I can help you find resources to fill in any gaps early in the semester.

### Grading

Grades for this course will be based upon the following elements:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Participation</td>
<td>15%</td>
</tr>
<tr>
<td>HW1</td>
<td>7.5</td>
</tr>
<tr>
<td>HW1a</td>
<td>7.5</td>
</tr>
<tr>
<td>HW2</td>
<td>7.5</td>
</tr>
<tr>
<td>HW2a</td>
<td>7.5</td>
</tr>
<tr>
<td>HW3</td>
<td>15</td>
</tr>
<tr>
<td>Team Project</td>
<td>25</td>
</tr>
<tr>
<td>Final Portfolio</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
</tr>
</tbody>
</table>

Final grades will be assigned as follows:

<table>
<thead>
<tr>
<th>Letter</th>
<th>Numeric range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>94-100</td>
</tr>
<tr>
<td>A-</td>
<td>90-93</td>
</tr>
<tr>
<td>B+</td>
<td>86-89</td>
</tr>
<tr>
<td>B</td>
<td>82-85</td>
</tr>
<tr>
<td>B-</td>
<td>78-81</td>
</tr>
<tr>
<td>C</td>
<td>70-77</td>
</tr>
<tr>
<td>F</td>
<td>Below 70</td>
</tr>
</tbody>
</table>
University grades: The University grading system is available at http://policies.cua.edu/academicundergrad/gradesfull.cfm#II for undergraduates and http://policies.cua.edu/academicgrad//gradesfull.cfm#iii for graduate students. Reports of grades in courses are available at the end of each term on http://cardinalstation.cua.edu.

Class Participation - In class and online

Each class is critical to your learning experience. Your energy in contributing to class discussions, small-group exercises, and online activities and discussions will be important. Therefore, coming to class prepared (e.g., reading all course readings before class, working on project research, etc.) and actively participating will be necessary to receiving full credit for class participation. The readings are intended to stimulate questions in addition to providing information. It is a good strategy to make notes of questions and comments as you read - these can be useful contributions to the discussion.

Ungraded Exercises

Ungraded exercises are provided to help you learn and practice course material, especially specific techniques or tools. We will often start an exercise in class and have you finish afterwards.

Homework

Each homework assignment will incorporate the topics being covered and selected technology skills. The assignments will have a collaborative in-class component, and an individual at-home component. Assignments span multiple weeks. You must post your drafts before each class so that we can review them. Drafts are not graded but I will deduct points if they are not posted on time. In class, you will work in small groups to discuss the assignment and critique each other's drafts; as a group, you will present back to the class to share the highlights of your discussion. In class, you will also spend some time on your own producing an HTML document based on your group's in-class discussion and using the HTML techniques learned in class.

Before posting or submitting your work, you must test your work using a PC and Internet Explorer 7. If you do not have access to a PC, you can use one in the lab.

All assignments must be posted or submitted by noon on the day they are due, unless otherwise noted. If the assignment is submitted anytime after noon, your grade will be reduced by 10%. Each day it is late thereafter you will lose an additional 5% point (e.g., submitting one day late would reduce your grade by 15%).

Team Project & Presentation
For the team project, you will partner with at least one other person in the class to conduct an in-depth case study of a real organization's information system. Working with a larger group allows you to undertake a more ambitious and rewarding project. You will gain experience working on a technology project in a group - which is a real-world requirement for most jobs. Your group will present its work during the last two class sessions.

NOTE: Each part of the team project must be submitted by the due date at noon. If it is not submitted on time that day, your grade will be reduced by 10%. For each subsequent day it is late your grade will be reduced by 5%.

Final Portfolio

Throughout the course, you will post your assignments to a personal or team web site. By the end of the course, you will have a portfolio that illustrates the knowledge and skills you have developed during the course. After the team project presentations, you will be asked to prepare a final version of your web portfolio. This will include a reflective essay that critically examines your experience - what you have learned, how your perceptions of information technology have changed, etc.

Submitting Assignments

All assignments are to be submitted electronically through BlackBoard/Sakai or posted online as instructed.

Late work. The instructor will not accept late work except by prior arrangement. If accepted, it may not be graded until the end of the term.

Makeup work. If a student has a legitimate reason, such as a medical or family emergency, the instructor may allow a student to do makeup work. The amount and nature of the work is up to the instructor's discretion. It will be graded at term's end. Documentation of the emergency (e.g. a doctor's letter) may be required.

Place your name and email address at the top of all pages. Any work submitted with numerous grammar, spelling or format problems will be penalized.

Accommodations for students with disabilities: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the instructor privately to discuss specific needs. Please contact Disability Support Services (at 202 319-5211, room 207 Pryzbyla Center) to coordinate reasonable accommodations for students with documented disabilities. To read about the services and policies, please visit the website: http://disabilitysupport.cua.edu. The CUA guide for services and accommodations for students with disabilities can be found at
Academic Honesty

Academic honesty is expected of all CUA students. Faculty are required to initiate the imposition of sanctions when they find violations of academic honesty, such as plagiarism, improper use of a student's own work, cheating, and fabrication. The following sanctions are presented in the University procedures related to Student Academic Dishonesty (from http://policies.cua.edu/academicundergrad/integrityprocedures.cfm): "The presumed sanction for undergraduate students for academic dishonesty will be failure for the course. There may be circumstances, however, where, perhaps because of an undergraduate student's past record, a more serious sanction, such as suspension or expulsion, would be appropriate. In the context of graduate studies, the expectations for academic honesty are greater, and therefore the presumed sanction for dishonesty is likely to be more severe, e.g., expulsion. ...In the more unusual case, mitigating circumstances may exist that would warrant a lesser sanction than the presumed sanction." Please review the complete texts of the University policy and procedures regarding Student Academic Dishonesty, including requirements for appeals, at http://policies.cua.edu/academicundergrad/integrity.cfm and http://policies.cua.edu/academicundergrad/integrity.cfm.

Plagiarism will not be tolerated. Always cite your sources.

Participation and Conduct:

Attendance is required, in keeping with university policy. Your class participation grade depends on being in class and actively participating in class and online. If you will be unavoidably absent, you must consult with the instructor as early as possible. Arrive on time. Late arrival will affect your class participation grades.

If class is cancelled due to weather or other emergency, check the online announcements the next day. We will generally hold class online when this happens.

Behave respectfully. Students are expected to behave respectfully at all times: while in class, in public discussion forums, and when using email. Participation grades will reflect a student’s maturity level and professionalism; cooperation and collaboration with the class; and whether the meaningfully contributes to course discussions.
No phone calls during class. Turn off or silence cell phones and pagers. Students leaving the room for calls may not be allowed to return to that class session.

No grade discussions in class. Instructor will not discuss grades in class. First consider why the instructor deducted points. If you still disagree, explain your disagreement in an e-mail to the instructor.

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**Syllabus changes**

The instructor reserves the right to make changes to this syllabus as needed. Nothing in this syllabus may be construed as a contract. All changes will be provided to students via the class learning management system (BlackBoard or Sakai).

**Acknowledgments**

This syllabus was originally adapted with permission from material by David Shumaker and Allison Druin.