The Catholic University of America
School of Library and Information Science
LSC 555 – Information Systems in Library and Information Centers
Spring 2009
1/26/2009

Credit Hours: 3

Prerequisites: No course prerequisites but see Basic Skills Needed, below.

Meetings

This class will be a blend of in-class and online class meetings. Online course work will begin January 12. Class will meet (face-to-face, required) in Pangborn 301 on the following dates 1/25, 2/8, 3/1, 3/22 and 4/26 from 1:30- 4:00pm. There is an optional class meeting on January 11, 1:30-3:00. Regular online participation is expected. We will use the Sakai learning management system (sakai.nitle.org) extensively for announcements, discussion, assignments, etc. Students are expected to monitor Sakai frequently, as updates, administrative information and reminders are frequently posted there. Note that we do not use the CUA Sakai system (sakai.cua.edu).

Instructor Contact Information
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Office hours are posted on my web page.

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. In-class and online feedback is an integral part of the learning and assessment process for both the student and the instructor.
- Classes are recorded (on a best-effort basis) and posted to Sakai for review.

These course activities will be conducted face-to-face (in class) and online (using Sakai, wiki, and other tools). Students are expected to be online frequently. If you do not have daily access to the Internet, please contact the instructor before the first class meeting.

**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.:

| Framework | Two important ways that we think about and analyze information systems.
| Information Systems | Selected information systems to be investigated in this course.
| Building Blocks | Essential technology elements of all information systems
| Wrap-Up | |

**Course Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Module</th>
<th>Topics</th>
<th>Major Assignments (approx due date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan 11, 1:30 - 3:00 pm</td>
<td>Framework</td>
<td>Introductions and overview. Structure of the course. Course themes &amp; requirements. Information systems. HTML Basics. Introduce HW 1: Online Catalogs and Libraries</td>
<td>Post introduction; complete introductory questionnaire</td>
</tr>
<tr>
<td>2</td>
<td>Jan 12 - 18</td>
<td>Framework</td>
<td>Human-Computer Interaction, Users &amp; usability.</td>
<td>Post HW 1 draft</td>
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<tr>
<td>3</td>
<td>Jan 19</td>
<td>Optional: An opportunity for us to meet in person as the semester begins. Hands-on assistance getting started with Sakai and the other CUA information systems. Opportunity to discuss Basic Skills Needed with instructor.</td>
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<tr>
<td>4</td>
<td>Jan 20 - 25</td>
<td>Information Systems</td>
<td>Digital Libraries &amp; Archives. Introduce HW2: Digital Archives.</td>
<td>Post HW 2 draft (Feb 1)</td>
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<tr>
<td>Week</td>
<td>Date</td>
<td>Topic</td>
<td>Details</td>
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<td></td>
<td></td>
<td>Feb 8</td>
<td><strong>Face-to-face meeting</strong></td>
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<tr>
<td>7</td>
<td>Feb 23 - Mar 1</td>
<td>Building Blocks</td>
<td>Computer systems: Hardware and storage.</td>
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<td></td>
<td>Mar 1</td>
<td><strong>Face-to-face meeting</strong></td>
<td><strong>Spring Break</strong></td>
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<tr>
<td>8</td>
<td>Mar 2 - 8</td>
<td>Building Blocks</td>
<td>Computer systems: Software</td>
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<tr>
<td>9</td>
<td>Mar 9 - 15</td>
<td>Building Blocks</td>
<td>Project update 1 (Mar 9)</td>
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<tr>
<td>10</td>
<td>Mar 16 - 22</td>
<td>Building Blocks</td>
<td>Telecommunications &amp; networking</td>
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<tr>
<td></td>
<td>Mar 22</td>
<td><strong>Face-to-face meeting</strong></td>
<td>Project update 2 (Mar 22)</td>
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<tr>
<td>11</td>
<td>Mar 23 - 29</td>
<td>Building Blocks</td>
<td>Representation &amp; management of information: Files, databases, SQL</td>
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<tr>
<td>12</td>
<td>Mar 30 - Apr 5</td>
<td>Information Systems</td>
<td>Representation &amp; management of information: metadata.</td>
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<tr>
<td>13</td>
<td>Apr 6 - 9 (partial week)</td>
<td>Building Blocks</td>
<td>Web 2.0: Wikis, blogs and more.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Apr 10 - 13</td>
<td></td>
<td><strong>Easter Break</strong></td>
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<tr>
<td>15</td>
<td>Apr 14 - 19 (partial week)</td>
<td>Wrap-up</td>
<td>Social Issues in IT.</td>
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<tr>
<td>16</td>
<td>Apr 20 - 26</td>
<td>Wrap-up</td>
<td>Technology trends. Course review.</td>
<td></td>
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<tr>
<td>17</td>
<td>Apr 26</td>
<td><strong>Face-to-face meeting</strong></td>
<td>Team project presentations. Course evaluations</td>
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<tr>
<td>18</td>
<td>May 3</td>
<td></td>
<td>Complete project due (May 3)</td>
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<td>Final portfolio due (May 3)</td>
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Notes: This schedule provides an overview of topics and major assignments. Detailed information, including activities, exercises, and specific due dates, will be posted to Sakai. 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 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 a wiki for shared content development and collaborative activity
- Exploration of relational database concepts using Microsoft Access

Readings

<table>
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<tr>
<th>Week 1</th>
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**Introductions**

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

**Information and Systems**

(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

<table>
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<tr>
<th>Week 2</th>
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</thead>
</table>

**Human-computer Interaction. Users and Usability**

- Wikipedia (2008). Human-computer interaction. (Read through "Design Methodologies")
### Week 3

**Digital Libraries and Archives**

- Explore the National Archives’ [Access to Archival Databases](http://www.archives.gov) website and [The September 11 Digital Archive](http://www.911digitalarchive.com).

### Week 4

**Information Retrieval Systems**

- V. Bush (1945). “As We May Think” *Atlantic Monthly*.

### Week 5

**Library Information Systems**

- M. Deddins (2002). "Overview of ILS", *EDUCAUSE*
- D. Lorcan (2005). "The integrated library system that isn’t" *OCLC blog*.
- [Koha Open Source ILS](http://koha.com) koha.com

**Systems Librarianship**

## Week 6

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

- Data flow diagram wikipedia.org (optional)

## Week 7

**Computer Systems: Hardware & storage**

- From WikiPedia: Computer Hardware, Data Storage
- University of California Regents (2003). How Much Information?

## Week 8

**Computer Systems: Software**

- From WikiPedia: Computer Software, Software Licensing
- Additional readings TBD

## Week 9

**Telecommunications and Networking**

- From WikiPedia: Telecommunications, Cloud computing
- 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
Week 10

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

- Database Tutorial dot@mac

Technology readings/resources

- MS-Access Tutorial (maybe)
- SQL Tutorial W3Schools.com

Week 11

Representation & management of information: metadata

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

Topic readings Technology readings/resources


Week 12

Web 2.0


Week 13

Social Issues

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 Sakai, view this syllabus and related information available, and post a personal introduction on the discussion forum.
- 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

<table>
<thead>
<tr>
<th>Component</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>Class Participation</td>
<td>15%</td>
</tr>
<tr>
<td>HW1</td>
<td>15</td>
</tr>
<tr>
<td>HW2</td>
<td>15</td>
</tr>
<tr>
<td>HW3</td>
<td>15</td>
</tr>
<tr>
<td>Team Project</td>
<td>25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Letter</th>
<th>Numeric range</th>
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</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>
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</tbody>
</table>
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.

Exercises and Other Activities

Exercises and other activities 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. Although they are not formally graded, they contribute to your participation grade - you are expected to complete them and post your results, comments, etc. as instructed.

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. You 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

For your final portfolio, you will write 2 short essays (somewhat similar to comprehensive exam questions) and prepare a final version of your web portfolio. Throughout the course, you will post your assignments and other work products 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.

## Submitting Assignments

All assignments are to be submitted electronically through the Sakai Learning Management System 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](http://disabilitysupport.cua.edu). The CUA guide for services and accommodations for students with disabilities can be found at [http://counsel.cua.edu/ADA/publications/disbro/contents.cfm](http://counsel.cua.edu/ADA/publications/disbro/contents.cfm). Some basic guidelines and links to other information may be found at: [http://counsel.cua.edu/ADA/clicks/](http://counsel.cua.edu/ADA/clicks/).

## University Grades

The University grading system is available at [http://policies.cua.edu/academicundergrad/gradesfull.cfm#II](http://policies.cua.edu/academicundergrad/gradesfull.cfm#II) for undergraduates and [http://policies.cua.edu/academicgrad/gradesfull.cfm#iii](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](http://cardinalstation.cua.edu).

## COURSE POLICIES AND EXPECTATIONS

### 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](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...

Plagiarism will not be tolerated. Always cite your sources.

Participation and Conduct:

Attendance is required, in keeping with university policy. Any non-emergency absences must be approved by the instructor before the first class of the semester. Your class participation grade depends on being in class and actively participating in class and online. 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.

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.

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 Sakai.

Acknowledgements

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

Revision History

1/13/2008 - Added reading for week 1 (Encyclopedia Brittanica Online)
1/26/2008 - Included approximate due dates for major assignments and aligned them with appropriate weeks; deleted CSS readings for week 3