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LIS 647 Section 001 CRN 78988
Systems Analysis for Information Management
(Focus on Creating Digital Libraries)

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co-located with

ICS 691 Section (TBA) CRN (TBA)
Topics in Software (Creation of Digital Libraries)

(Fall 2014)

Final version of this syllabus will be distributed in class

Instructor:	Luz. M. Quiroga, Assistant Professor
Class Meetings:	Saturday, 9:00a - 11:40a Room: LIS Program (Hamilton library - basement) - 3G
Laulima site:	http://laulima.hawaii.edu LIS647-ICS691 Fall 2012
Website:	http://www2.hawaii.edu/~lquiroga/courses/lis647-ics69 /lis647-ics691.htm
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Course Description (from UH catalog)

LIS 647 Systems Analysis for Information Management (Focus on Creating Digital Libraries). Overview of systems analysis, its techniques, benefits, and limitations. Focus on libraries and information agencies, although concepts are applicable to other settings. Structured, top-down solutions stressed throughout. Object oriented techniques and data modeling tools are reviewed.

ICS 691 Topics in Software (Creation of Digital Libraries). Reflects special interests of faculty in theoretical computer science.

Detailed Course Description

This course teaches students the principles and techniques of systems analysis and how to apply them in creating user-centered digital libraries. Digital Libraries are organized collections of information, a focused collection of digital objects, including text, video, and audio, along with methods for access and retrieval, and for selection, organization, and maintenance of the collection (Witten et al, 2010, p. 7).

Digital libraries are fast becoming an integral part of information science as more and more institutions (e.g. libraries, schools, universities, museums, corporation, government) are building

their own digital collections and institutional repositories. At a more personal level, there is a need to learn how to create, manage and provide access to digital collections about our communities, families, personal interests and work.

For those students not enrolled in the ICS or LIS programs: I have to release a code before you can register; contact me at lquiroga@hawaii.edu

Intended Audience

This course takes an interdisciplinary approach and therefore is geared towards students in different fields (e.g. LIS, ICS, ITM, Museum Studies, Geography, ETEC, etc). It is appropriate for students who need to understand methods for selection, organization, access, maintenance, and end user retrieval of digital collections. It is useful for students who wish to learn real-world implementation of these powerful educational tools. It is suitable for anyone who wants to build their own personal digital library. See Skills Gained => Job for a list of skills you may gain from taking this class and some examples of jobs that could use those skills.

Course Structure

Class meetings will combine lectures, demos, exercises, presentations and discussions. For each class session, students should have completed the assigned readings, bringing questions and comments to the class. There will be class exercises and minor assignments. During each class a student will help the instructor to lead, co-teach the session with the instructor.

Early in the semester students will choose a digital library / project to review as well as special topic relevant to the creation of digital library; students will also work in a term project (see descriptions below); working in groups for the special topic and / or term project is encouraged.

Laulima Class Website: Students will use Laulima as the website for the class including conducting online discussions of their projects.

Prerequisite

There are no prerequisite classes; however, students should have basic knowledge of Information Technology.

For LIS students, it is recommended to take this class in parallel or after LIS 670, "Introduction to Information Science and Technology."

Student Learning Outcomes (to LIS students only):

This course addresses the following objectives of the LIS Program, as stated in their mission and goals. This course enables students to:

SLO 1: Understand, apply and articulate the history, philosophy, principles and ethics of library and information science and the related professions.
- 1a) Apply LIS theory and principles to diverse information contexts
- 1c) Develop and apply critical thinking skills in preparation for professional practice

SLO 2: Develop, administrate, assess, and advocate for information services by exercising principled communication, teamwork and leadership skills.
- 2b) Work effectively in teams
- 2c) Develop, manage, and assess information services for specific users and communities

SLO 3: Organize, create, archive, preserve, retrieve, manage, evaluate, and disseminate information resources in a variety of formats.
- 3b) Organize, create, archive and manage collections of information resources following professional standards
- 3d) Demonstrate understanding of issues and techniques of preservation of physical and digital objects

SLO 4: Evaluate and use the latest information technologies, research findings and methods.
- 4a) Evaluate systems and technologies in terms of quality, functionality, cost-effectiveness and adherence to professional standards

SLO 5: Engage in projects and assignments dealing with multicultural communities and representing diverse points of view.
- 5a) Communicate and collaborate with diverse colleagues, information seekers and community stakeholders
- 5b) Demonstrate understanding of the social, cultural, political, and economic context of information services and systems

Course Learning Objectives

At the end of the course you will be able to:

- Participate in planning, development and management of a digital library project.
- Discuss principles of interoperability, standards, and metadata (e.g. digital types, formats, protocols).
- Evaluate digital library technologies.
- Discuss issues/challenges facing digital libraries (digital preservation, copyright, personalization, personal digital libraries).
- Be familiar and current with present and future trends in digital libraries.

Professional Expectations

All students are expected to become familiar with and adhere to the Professional Code and Expectations posted at http://www.hawaii.edu/lis/students.php?page=profexp.

Teaching Philosophy

I believe in collaborative learning, where we all learn from each other. I also believe that students will benefit from exposure to real world situations, as it will foster their critical thinking. Working in a group helps students to improve their communication skills, which is something highly appreciated by most organizations. I also believe that it is everyone's social responsibility to contribute in developing solutions to some of the problems in our community. As a result, this is project-driven course -- rather than lecture-driven -- where students work as a group in real life community-oriented projects.

Research Methods

Methodologies and procedures for system analysis and research can take different approaches; examples of methods incorporated in assignments and course projects are Survey research, Interviews and Content analysis.

Required Text

- Witten, Ian H., David Bainbridge and, David M. Nichols. How to Build a Digital Library. 2nd ed. San Francisco: Morgan Kaufmann, 2010.

Supplemental Material

Additional readings will suggested by the instructor and / or the co-teachers. In those cases, students will receive copies or links to the chapters in advance. Selected chapters from following books might be assigned as reading:

- Kruk, Sebastian Ryszard and McDaniel, Bill (eds). Semantic Digital Libraries. Berlin Springer, 2009.
- Lesk, Michael. Understanding Digital Libraries, 2nd. ed. San Francisco: Morgan Kaufmann, 2004.
- Osborne, Larry N. and Nakamura, Margaret. Systems Analysis for Librarians and Information Professionals, 2nd. ed. Englewood, CO: Libraries Unlimited, 2000.
- Valacich, Joseph S; George, Joey F. and Hoffer, Jeffrey A. Essentials of Systems Analysis &

Design, 5th ed. Saddle River, N.J.: Prentice-Hall, 2012.

Co-Teaching a class

During the semester, students will co-teach the class:

1. Sign up for a specific session (during the first two weeks of class)
2. Discuss with the instructor the format and content of each class you will be co-teaching (at least two weeks in advance)
3. Help to update the reading list & make copies available to the class students (at least one week in advance)
4. Help to introduce the topic, bring issues, questions, comments to foster class discussion. Complement with practical work: exercise, demos, lab time, etc.

Digital Library/Project Review

Overview

Select a digital library (DL) or digital library project (proposed digital collections, resources related to digital projects and/or libraries) of your choice. Your selection must be approved by the instructor and presented accordingly to the session topics listed in the course calendar.

Prepare a written review of your digital library/project discussing the various issues that apply to that specific library or collection (see content outline below). The summary should not be more than 3 printed pages, and should be posted in Laulima under the appropriate topic heading.

Students must then prepare and present a brief demo, which should illustrate the summary that was written, highlighting key features of your review. A handout should also be prepared to accompany the presentation (references, glossary, discussion questions, exercises, etc.) and the presentation itself should not be more than 15 minutes long.

Content Outline

1. Name of digital library/project
2. Citation (URL)
3. Mission/goals (e.g. provide a service, conduct research on DL issues)
4. Community it serves (who is the audience, users)
5. Content (collection development policy, scope of their collection, etc.)
6. Organization of information (Metadata, classification / categories, thesaurus)
7. Interfaces (search capabilities, basic / advance search, visualization aids for searching, browsing or presentation of results)
8. Services (access policy, help options, instructions, FAQ, digital-reference, chats, blogs, etc.)
9. Technology (e.g. digitization procedures, content management, web access, hardware/software employed, etc.)
10. Management (budget, funding, partnerships, sustainability)
11. Publications (e.g. papers / reviews / evaluations) by the DL / project group or about the DL / project
12. Other relevant information about the DL / project

Special Topic Research

Students will work individually or in teams of 2-3 members to analyze a selected special topic and present the analysis results to the class. Students may find special topic information useful in preparing for the course project, or give an awareness of current issues related to digital collections/libraries. The results of the special topic analysis will be presented orally to the class during the semester (15 minutes), and a short paper (2-5 pages, double space) should summarize the work done. A revised copy, including feedback received from instructor and classmates is due two weeks after [the presentation / you have received instructor feedback] . This revised document will be ready to be uploaded to ScholarSpace, the UH Institutional repository. Students will negotiate with the instructor the theme and schedule of presentations in order to find the time that will better

complement the class matters. Students can use the special topic to support their final project.

Examples of special topics that students can undertake:

- Evaluation of a digital library/collection. Write an informative review of the scope, design, search features/tools, digitization procedures, content management, and other relevant issues in regards to the accessibility and dissemination of information the collection provides.
- Analysis of metadata in a digital library project. Topics should include what kind of metadata exists within that project, standards it implements, presentation to the user, and how does the metadata affect a digital collection (general, specific).
- Critical examination of current issues related to digital libraries/collections, such as copyright, open source, educational/social value, technical advances and/or challenges, etc.
- Coordination of a field trip, or onsite observational report. Arrange a tour, meeting, or a guest speaker, to discuss or present practical applications of building/designing a digital library.
- Preparation of tutorial or workshop on software or tools used to create and implement a digital library (scanning / digital equipment, image / video editing software, content management software, etc.).

Term Project

Students will participate in a team project of 2-4 members. Each team will periodically present informal reports of their progress to the class. Final results of the project will be presented to the class, both orally and in written form at the end of the semester.

Examples of course projects that students can undertake:

- Analyze management of digital materials in different domains, developed using different systems (e.g. a basic web page implementation or an open source or proprietary content management system)
- Examine an on going digitization process, from proposal to implementation. It could be a digital library /collection which is partially underway and/or going through some changes in the digitization process (topics covered would be assessing needs, presenting progress, analyzing future work and implications)
- Evaluate and analyze a digital library / collection (e.g. treatment of materials, study individual sections of the collection)
- Analyze and propose policies and/or procedures to a library or organization that is planning for digital library (technical standards - scanning, software, distribution and pricing policy, prioritizing digitization work - materials, time, effort, comparative research, etc.)
- Analyze and develop a plan to convert an archive to a digital library system that can make the digital files accessible online, with searchable metadata. Issues related to the project to consider and study: scanning (e.g. standards, equipment), copyright, encoding / metadata standards (tagging, social classification) and interoperability / compatibility with other digital library projects.

Project Progress Reports

To make the task more manageable, the final project report has been broken down into three project reports (PR), written by the team. Each report will help the group to build the final project report, part by part. With every project report due, students must also provide the project documentation. Project documentation refers to information collected while working on the project, such as field notes, comments, etc. After submission of each progress report, each team should schedule a meeting with the instructor to discuss progress and next steps.

Project Journals

With each project progress report, students will turn in an INDIVIDUAL project journal. The project journals are used to evaluate the student's progress and how well each student is doing. A journal is due at the same time the project progress report is due. Since project journals are individual work, other team members should not read them. Therefore, each student MUST turn in his / her own journal.

Project Poster

The group should provide a Power Point file that will contain a single slide that summarizes your project. It can be created from the slides of your project presentation file. Creativity will be needed to make it appealing, yet still informative.

Communication

- Work space: This class has a work space in Laulima at http://laulima.hawaii.edu where you can find details and discussions of weekly activities and assignments. Also you will have a space for your group project and special topic planning and follow up.
- File sharing / co-editor: dropbox, Google drive or similar system
- Instructor e-mail: Feel free to e-mail me at lquiroga@hawaii.edu. Please start the message subject with "LIS 647" or "ICS 691".
- Class discussion: for each class session, a forum will be created in Laulima for questions and discussions.
- Group Project discussion: each group will have a group project section, which will be used to discuss ideas with your other group members and the client / mentor
- Special Topic discussion: each group will have a topic forum to discuss ideas and progress
- Client / Mentor Guest Account: The clients can have a guest account on Laulima so that they can communicate with the students and provide feedback on the group projects.
- Online conferences via Skype or similar software could be used to interact with the instructor or classmates.
- Face to face, online (skype) or phone meetings can be set by appointment.

Technology Requirements

This course requires use of a computer for most of the assignments and the Internet. Students should be prepared to learn systems such as Laulima, MS-visio, MS-project manager, Greenstone, contentDM.

Grading Summary

Assignment scoring:

Participation: Class attendance, constructive participation, online discussions, leadership		15%
In-class exercises, assignments, homework		15%
Co-teaching a class		15%
Digital library / Project review		10%
Special topic research		
Presentation		5%
Paper and poster		5%
Revised copy of Special topic (ScholarSpace format)		5%
Course project:		30%
In progress project reports and documentation (team) (3 reports)	9%	
Individual journals (3 journals)	3%	
Course project Presentation (team)	3%	
Course project report and poster (team)	5%	
Revised copy of project report and poster (team; ScholarSpace format)	5%	
Intra-team and client evaluations	5%	

Grading Scale:

100 + outstanding work: A+	100-94 A	93-90 A-
89-97 B+	86-83 B	82-80 B-

79-77 C+	76-73 C	72-70 C-
69-67 D+	66-63 D	62-60 D-

Students with special needs

Students with special needs as defined by the Americans with Disabilities Act, should discuss their needs with the instructor at the beginning of the semester, in order to make the necessary arrangements early in advance.

Policies

Class participation, discussion, leadership:

Full credit will be awarded only to students who have near-perfect attendance, participate meaningfully (and non-obstructively) in class discussions, and create an atmosphere of collegial participation when leading discussions.

Missing class policy:

Missing a session affects overall class participation; it will also affect the grade if there happens to be an exercise or quiz during the class. With a valid excuse (e.g. health problems, attending a professional meeting) the student will be asked to post in Laulima a class review or a a brief summary (no more than 2 pages) of the meeting attended if it pertains to the course concepts.

Late assignments, exercises policy:

With no valid excuse: the grade for the assignment will be reduced by 20% per each late day. With a valid excuse: a fair deadline will be negotiated.

Course Schedule

See the course schedule at http://www2.hawaii.edu/~lquiroga/courses/lis647-ics691/lis647-ics691courseSchedule.htm

Acknowledgements

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