Technology for Libraries & Information Centers
LIS 672 Course Syllabus
Summer Session II 2015

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Course description
Survey of theories, concepts, methods and practices relating to the application of information technology to support the administration and use of information resources. Includes digital, printed and audiovisual materials.

Prerequisite
LIS 670 Introduction to Information Science and Technology or LIS 605 Metadata Creation for Information Organization **OR** instructor's consent.

Student Learning Outcomes (SLO)
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
1b) Demonstrate understanding of the historical context of information services and systems
1c) Develop and apply critical thinking skills in preparation for professional practice

Final Project addressing real world needs and applying principles of selection, organization and management of information; use of systems analysis methods; short assignments on current status of library systems.

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

Library-based project.

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

Short assignments on library systems standards and protocols.

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
4b) Integrate emerging technologies into professional practice

Assignment on current issues and emerging technologies relevant to libraries and information centers; short assignment on usability studies.

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

Final Paper and presentation creating IT based services for a specific institution.

Teaching method
Lectures are used to introduce students to the underlying theories and current issues with Integrated Library Systems and Technologies used in libraries and information centers. Guest speakers bring to the course expertise in a variety of fields, and provide students with additional resources and possible future collaborative projects. I believe in collaborative learning where we all learn from each other. The combination of lectures, guest speakers, and independent exercises helps students learn and share knowledge and insights as well as improve their communication skills which is vital in any organization.

Research methods
Methodologies and procedures for systems analysis and research can take different approaches. Examples of methods incorporated in assignments and course projects are: Needs assessment, Survey research, Content analysis, Transaction log analysis, Observations, and Usability studies.

Required Text
Bilal, Dania. *Library Automation: Core concepts and practical systems analysis, Third edition.* Santa Barbara, CA: Libraries Unlimited, 2014.

Required Readings
All articles will be available on *Laulima* under *Resources* and must be read prior to class.

Copyright Notice
Materials used in this course are copyrighted and used within the legal guidelines of the U.S. Copyright Act of 1976, and its accompanying updates and doctrines which include the TEACH Act of 2002. Course materials are for class and student use only. Students are not permitted to further copy nor distribute course materials without the express written consent of the Instructor.

Student Responsibilities
This course is reading, writing, research, and fieldwork intensive. You should expect to spend at least 4 to 5 hours for each class session using your textbook, reading assigned articles, and actively participating in Laulima discussions (if applicable), and using print and online resources to research, write, and submit your work.

Professional Expectations and Technical Prerequisites
As an LIS graduate student, all students in the course are expected to become familiar with and adhere to the professional expectations and technical prerequisites posted at
http://www.hawaii.edu/lis/students/professional-expectations-notice/ and
http://www.hawaii.edu/lis/students/computer-literacy-skills/

Academic Integrity and Honesty
The field of Library and Information Science promotes ethical conduct of its members through published codes of ethics and standards of conduct. LIS Program students are expected to adopt and adhere to these established, copyright, internet, and intellectual property standards as outlined on the Professional Expectations Notice on the LIS Program website listed in the previous paragraph. Assignment instructions must be followed to protect you from any possible copyright violations, and any non-LIS Program entities you may be working with as part of this course. Instances of plagiarism, academic dishonesty, or academic impropriety will result in an automatic score of zero "0" for the assignment and may subject you to possible sanctions to the Graduate Dean.

Class Participation
The ability to work successfully with colleagues is the cornerstone of your career in the information profession. Therefore, active class participation and interaction with your fellow student-colleagues and instructor are important components of this course. Everyone is expected to contribute thoughtfully, respectfully, and fully during in-class sessions, non-class sessions (office hours, phone calls, text messages, halawai, skype), and online (to include email, text) communications regarding this course.

This course is designed to create Systems Librarians. Traditionally, systems librarians were only tasked with automating the library by creating and supporting an Online Public Access Catalog to replace card catalogs. As technology has become ubiquitous, systems librarians have evolved to function as a "technology specialist" that takes a broad view of technology within libraries. To this end, at the beginning of each class session, we will have a "Tech Tips of the Day" discussion where everyone will share at least one new technology tip they have learned. Tech tips can run the entire gamut from "dumb" cellphones to jQuery programming tips.

Additionally, in consideration of all during class, please silence all mobile devices by placing them in vibrate, silent, or airplane mode.

Emailing the Instructor
As you know, I am an Adjunct Faculty in the LIS Program working full-time as a Systems Librarian in the Library Systems Office at Hamilton Library. I receive lots of work email on a daily basis. To differentiate your correspondence from all others, please use your UH email *only*, putting your course number in the email subject line so that I know it is from you for this course. ***This is vitally important***. If you do not do this, I may miss your email. Please adhere to this on a consistent basis throughout the course, using the following as an example:

> From: yourUHusername@hawaii.edu
> Subject: LIS 672: Question about Assignment #2

All assignments must be submitted via email to the Instructor by the assignment's due date and time. Late assignments will be subject to significant points deducted off your earned score, and

forfeits any Instructor feedback. Extensions will not be granted, except in dire extenuating circumstances, so please do not ask. If you cannot submit your assignment by the due date and time, you need to inform me as soon as possible.

Course objectives
At the end of this course students should:
1. Understand the basic functions and configuration of computer systems; types of computers; and peripheral equipment used in library applications.
2. Be able to distinguish the types of software used in libraries and understand their functions.
3. Understand the role and importance of standards and protocols in IT library applications.
4. Understand the main objectives and approaches to the automation of the various functions in the library.
5. Be able to participate in the process of specification, selection, and procurement of an integrated library system (ILS), digital content management system (DSpace), or library services platform (LSP / Discovery / ERMS).
6. Be able to participate in the planning, development and management of new library systems based on emerging technologies, e.g. Web 2.0, Social Media, Library Services Platform (LSP), Open Educational Resources.
7. Be able to understand information technology changes and how they apply to libraries and information centers, e.g. BYOD, Flipped Classroom, Makerspaces, 3D Printers, Wearable Technology, Adaptive LearningTechnologies, The Internet of Things, Digital Humanities.

Assignments
All assignments will be in 12-point serif typeface (e.g., Times New Roman, Century Schoolbook or Garamond) with one inch margins all around. Place your Name on the first page Header and page numbers in the Footer, centered, 1/2-inch from the edges. You do not need to show the page number on the first page (like this syllabus).

Assignments 1, 2, and 3 are limited to no more than **4 pages**. The first three assignments are designed to be clear, succinct, and to the point. If you choose to write more than 4 pages, you will only be graded on the content of the first 4 pages.

1. Compare and contrast three OPACs: Hawaii Voyager must be one of the OPACs. A list of OPACs will be distributed in class and *Laulima*. (15 points).

2. Compare and contrast Hawaii Voyager's mobile versus its regular OPAC. (15 points)

3. Compare and contrast two published Usability Studies of a current ILS or LSP (Discovery) System. (15 points)

4. Current Issues and Emerging Technologies:This assignment is to give you an awareness of current issues and emerging technologies in libraries and information centers. Examples of relevant topics are a) integration of technologies and library services (e.g., ILS, LSP systems, digital repositories, podcasting servers, streaming video, etc.); c) open source software for library applications; d) incorporating the use of technology in teaching and learning in collaboration with academic leadership goals (e.g., digital humanities); and e) developing IT funding models

that sustain library and information center core services whilst developing an enterprise IT structure that can respond to changing conditions. This assignment consists of a 4-6 page paper. (20 points)

5. Final Paper and Presentation: Based on your previous assignments, write a proposal for implementing an ILS, LSP, current issue, service, or an emerging technology in a library or media center. This assignment consists of a 5-10 page paper, and must include a list of responsibilities (who's responsible for what), tables of proposed expenses (hardware, software, networking, etc), and an implementation timeline. Students will present their proposal in class. (25 points)

6. Class Participation (10 points)

Guidelines for Assignments
Because this course is offered during a compressed six week summer session, there will be no formal group project. However, implementation of any new information technology service in libraries and information centers are never done by a single individual; they are always accomplished by a team led by a Project Manager, so all of your assignments will be written from the Project Manager's perspective. As an option, you may choose to partner with a fellow classmate/colleague for Assignments #4 and #5, but prior Instructor Approval is required.

For the "compare and contrast" assignments, choose the same type of library so you are comparing apples to apples, not apples to cats. For example, large academic libraries, small academic libraries (2 or 4 year colleges) large or small public libraries, special libraries, etc.

Assignment #1 should include the following information:
1. Proprietary vendor or Open Source
2. Locally hosted or cloud hosted
3. default and advanced search capabilities
4. patron (user) accounts; ability to renew items
5. annual cost of OPAC (if provided) or Return on Investment (ROI)

Assignment #2 should include the following information:
1. How does the mobile interface differ than the non-mobile version
2. default and advanced search capabilities
3. advantages of the mobile interface
4. disadvantages of the mobile interface
5. Why the mobile interface better or worse than non-mobile OPAC

Assignment #3 should include the following information:
1. Why you chose the two studies
2. Proprietary or open source
3. Default features (search types, post-limits, facets, etc.)
4. ease of use (from both patron and staff perspective)
5. Cost of ILS/LSP (if disclosed)

For Assignment #4, Current Issues and Emerging Technologies, choose a topic that interests you. Your topic does not have to be limited to the examples given. Required sections of your paper must include:

a. the history of the topic
b. why it is important for libraries
c. how the topic will improve library services
d. the tangible (or intangible) benefits for the library, its users, and/or the larger organization (e.g., lower overhead, better use of equipment and resources, etc.)

For Assignment #5, Final Paper and Presentation, you will present a plan to implement your selected service in your library/information center. Required sections of your final assignment must include:

a) why you chose the service and who is its target users
b) why it is important for libraries/information centers
c) what is the start-up and annual cost
d) Implementation timeline
e) how will the service be evaluated for efficacy, upgrades, and obsolescence

Grading Scale (course assignments and scoring)
100-99 (outstanding work) = A+   98-92 = A   91-90 = A-
89 = B+   88-82 = B   81-80 = B-
79 = C+   78-72 = C   71-70 = C-
69 = D+   68-62 = D   61-60 = D-

A Summary View of Grading Criteria

	Assignment	Due Date	% of Final Grade
1	C&C three OPACs	July 10, 11:59PM	15%
2	C&C Hawaii Voyager Tomcat v. Mobile	July 15, 11:59PM	15%
3	C&C ILS/LSP Usability Studies	July 20, 11:59PM	15%
4	Current Issues and Emerging Technologies	July 27, 11:59pm	20%
5	Proposal for Implementing a Service	August 14, 5:00PM	25%
6	Participation and Attendance		10%
TOTAL			**100%**

General Grading Rubrics
Unless otherwise specified, grading for all assignments is on a point-for-percentage basis, and is typically based on the following criteria:

- Originality in thought and depth of ideas and analysis of the issue
- Demonstrated ability to use scholarly sources to support ideas and opinions
- Compliance with course assignment criteria and standards
- Fulfillment of all requirements for assignments
- Timeliness of submission (early submission is good, but ensure assignment is 100% complete)

I will distribute a grading spreadsheet that outlines the point-for-percentage basis.

Technology requirements
This course requires use of an Internet network-connected computer with a standard Web browser such as Mozilla Firefox, Apple Safari, or Google Chrome, Word, PowerPoint, and Adobe Acrobat reader (available free of charge from http://www.adobe.com). Students are expected to check their @hawaii.edu email daily. Ths course requires the use of *Laulima* to access course materials and to conduct discussions with the instructor and fellow classmates.

Course schedule
The following schedule may not be strictly followed. Adjustments will be announced early in class and/or via email. Students are expected to have all readings and assignments completed before the class session unless otherwise instructed. Additional readings may be added during the course of this class, and will be assigned before each session.

Because this course is being offered during a six-week Summer Session that has 18 class sessions, we will have 2 or 3 ***Independent Study Days*** (ISD) to "equalize" the difference between 18 class sessions versus 15 or 16 classes during a regular Fall/Spring semester. Two of the ISDs are scheduled for Friday July 24th, and Friday August 7th. On Monday July 6, we will decide, as a class, if and when we want to have the final ISD.

Date	Session	Required Readings	Notes / Activities
Jul 6 Mon	01	Introductions; logistics; syllabus; *Laulima*; Overview and History of Library Automation	*Laulima* demo, class introductions, short technology survey; *Desk Set*
Jul 8 Wed	02	- What is an Integrated Library Management System (ILMS). *Bilal*, Introduction p. xxi-xxix, Chapter 1 p. 1-15	Discussion question: Why are ILMSs necessary? Hawaii Voyager demo (also on Halawai)
Jul 10 Fri	03	-The impact of technology on library services; Library Automation Life Cycle (LALC), Part 1 *Bilal*, Chapter 2: LALC Phase I: System Identification and Planning	Assignment #1 due NLT 11:59pm
Jul 13 Mon	04	- What is a Systems Librarian? -System Identification and Planning, Part 2 *Bilal*, Chapter 2: the role of the Project Manager **Guest speaker**: James Adamson, Head of Systems, Hamilton Library	
Jul 15 Wed	05	-Late 20th Century Integrated Library Management Systems and "Next-gen" Systems. **Guest speaker**: Jennifer Beamer,	Assignment #2 due NLT 11:59pm

		Humanities, Social Sciences, and Digital Initiatives Librarian, Hamilton Library	
Jul 17 Fri	06	-LALC Phase 2: Gathering User Requirements *Bilal*, Chapter 3, 6, and 7	
Jul 20 Mon	07	-Determine priorities within the library. -What does your staff want and need? How much money do you want to spend? Locally Hosted or Cloud Services?	Assignment #3 due NLT 11:59pm
Jul 22 Wed	08	-LALC Phase 3: Structuring User Requirements and Selecting a System Bilal, Chapter 4	
Jul 24 Fri		***Independent Study Day***	Instructor available for office hours.
Jul 27 Mon	09	-LALC Phase 4: Systems Implementation: Preparing the Collection for the ILS Bilal, Chapter 5	Assignment #4 due NLT 11:59pm
Jul 29 Wed	10	Digital Libraries: **Guest Speaker**: Shari Tamashiro, Cybrarian, Kapiolani Community College. Project Manager, nisei.hawaii.edu Digital Oral History Project.	
Jul 31 Fri	11	-What does your current system have? bibliographic records, barcodes, standards to follow: MARC21, MARCXML, BIBFRAME, FRBR, RDA, Linked Data, etc.	
Aug 3 Mon	12	-Proprietary versus Open Source. How much time do you really want to spend on implementing an ILS? [possible Guest Lecturer: Gina Vergara-Bautista, Hawaii State Archives; Koha open source OPAC; digital documents]	

Aug 5 Wed	13	Next Generation Library Management Systems Bilal, Chapter 4	
Aug 7 Fri		***Independent Study Day***	Instructor available for office hours.
Aug 10 Mon	14	Bilal, Chapter 10: Library Automation 'On the Move' Technology Trends	
Aug 12 Wed	15	Final Presentations	
Aug 14 Fri	16	Final Presentations, course evaluation	