S652 Digital Libraries

Indiana University-Purdue University at Indianapolis (IUPUI)
School of Informatics and Computing - Dept. of Library and Information Science

From schools and universities to public libraries and government agencies, a wide range of institutions are building digital libraries. Whether providing access to digital collections, institutional repositories, or other types of digital information services, library and information science professionals are needed to design, develop, and manage these emerging digital information sources and services. Information professionals may also collaborate with individuals, communities, and corporations in creating digital collections.

This course explores both the theory and practice of digital libraries in academic, research, community, government, and other settings. Topics include definitions; digital objects (e.g., digitization processes, archiving, preservation); acquisitions and collection development; organization and representation of information (e.g., metadata, ontologies, classification, description); information architecture; information access, user behavior and interaction; services, management, and evaluation; issues (e.g., intellectual property, privacy, social, economic, sustainability); evolving technologies; and research agendas.

Instructor Contact Information

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Course Description

Catalog Description: This course introduces digital libraries — networked information servers that provide access to multimedia data for local and remote users. Primary emphasis is on developing digital libraries, based on understanding tools for presentation and manipulation of multimedia as well as analysis of user needs.

The course will be taught entirely online including web-based readings and resources, threaded discussions, plus online presentations and activities.

The following entry skills are required for this course:

- Demonstrate technology skills including use of productivity tools (i.e., word processing, spreadsheet, presentation), web development tools, social media, and utilities (i.e., downloading drivers and plugins).
- Identify, select, access, and evaluate information found on the Internet and in the library.
- Use Canvas for discussions and information sharing.
You must complete S501, S502, and S503 prior to taking this course. It is strongly recommended that you complete S532 Information Architecture and S634 Metadata prior to taking this course.

This course makes the assumption that students are able to work independently. There are no required face-to-face meetings. There are no required synchronous online meetings. However, students are encouraged to e-mail or arrange a chat with the instructor at any time.

**Learning Objectives**

Students will be able to:

- Define digital libraries including digital library types, collections, and resources.
- Identify the essential components and relationships involved in digital libraries.
- Distinguish among traditional library resources, digital collections, digital libraries, and related terms.
- Discuss connections with disciplines and enterprises as well as the personal digital collections.
- Discuss differing conceptions, expectations, visions, and approaches to digital library development and implementation.
- Categorize and describe digital libraries by resources, specialties, disciplines, institutions, and audiences.
- Evaluate digital libraries and digital collections.
- Identify the audiences and stakeholders associated with digital libraries.
- Describe the foundations of digital library research and development.
- Identify key sources of information about digital libraries.
- Discuss the major issues in digital library research.
- Discuss the major issues in the development and management of digital libraries.
- Apply digital library technologies software for digital library development.
- Organize digital library content.
- Describe the digitization process including preservation.
- Identify the range of objects both physical and digitally born that may be incorporated into a digital collection to meet digital library goals.
- Demonstrate skills in working with digital objects (textual documents, images, audio, video).
- Apply technology tools to digitize materials.
- Discuss the pros and cons of various file formats.
- Compare digital representation formats for textual, image, audio, and video materials.
- Demonstrate practical skills and theoretical concepts related to digital library planning, development, organization, management, use, and preservation.
- Develop and implement plans for user access to library library content.
- Apply guidelines associated with digitization (e.g., best practices, file formats, digital objects, protocols).
• Implement metadata standards associated with digital libraries.
• Define and apply controlled vocabularies.
• Discuss concepts in data and digital object interoperability, use, and reuse.
• Discuss digital archiving and preservation of both physical and digitally born objects.
• Describe user behavior in a digital library environment.
• Develop a prototype digital library collection.
• Address legal, ethical, economic, and social issues and challenges associated with digital libraries (e.g., interoperability, customization, personalization, digital preservation, copyright, privacy).
• Describe and give examples of how the copyright law applies to digital libraries.
• Discuss approaches to digital library services including access and use.
• Discuss the past, present, and future of digital libraries.
• Describe the constantly changing nature of digital environments and the implications for library and information science professionals.
• Analyze the research literature on digital libraries.

**MLS Program, Graduate Program and ALA Competency Connections**

This course addresses competencies related to the MLS program in the following areas:

- Assist and Educate Users
- Apply Management and Leadership Skills
- Work Effectively Within and Across a Variety of Organizational Structures
- Conduct and Analyze Research
- Demonstrate Basic Technical Expertise
- Approach Professional Issues with Understanding

This course is connected to the Principles of Graduate and Professional Learning in the following areas:

- Demonstrating mastery of the knowledge and skills expected for the degree and for professionalism and success in the field
- Thinking critically, applying good judgment in professional and personal situations
- Communicating effectively to others in the field and to the general public
- Behaving in an ethical way both professionally and personally

This course addresses a number of ALA competencies. According to ALA (2009), a person graduating from an ALA-accredited master’s program in library and information studies should know and, where appropriate, be able to employ:

- Foundations of the Profession
- Information Resources
- Technological Knowledge and Skills
- Reference and User Services
- Administration and Management
Course Materials

The course content will be accessed through a series of web pages. In addition to readings and presentation materials, the pages also contain reflective questions and individual exercises to reinforce key concepts.

NO textbook is required.

Course Assignments and Assessments

The learning objectives will be assessed through a series of activities and discussions. Course assignments are intended to help you apply the course materials.

Spark Projects

The course contains six Spark assignments worth between 10 or 20 points each. These "Sparks" are intended to ignite learning and help you apply the course materials to a project environment. These projects bridge theory and practice so you'll need to connect your course readings with real-world problems. The Sparks will be shared in the DISCUSSION area of Canvas.

- Spark 1: Breadth and Depth (10 Points)
- Spark 2: Personal Digital Object Collection (20 Points)
- Spark 3: Prototype Project (10 Points)
- Spark 4: Digital Library Investigation (10 Points)
- Spark 5: Issue or Specialization (10 Points)
- Spark 6: Real-world Connection (10 Points)

Bridging Theory and Practice Assignment

The course also contains a series of 15, 2-point short "Bridging Theory and Practice" assignments that help you connect digital libraries with the course readings. They are worth a total of 30 points. Some of these activities are drawn from the "Try It" activities woven into the course materials. You'll keep a log of the activities you complete and turn in one document near the end of the semester. However, I highly recommend that you work on these assignments week-by-week as you do the readings. This requirement will be shared in the ASSIGNMENT area of Canvas.

Course Grades

The points awarded for each activity are indicated on the Course Requirements. High expectations have been set for this course. Please notice that outstanding achievement will require careful attention to course criteria and exceptional quality in course assignments. Final grades are based on the following range within the total 100 points possible:
A 98-100
A- 95-97
B+ 92-94
B 89-91
B- 86-88
C 80-85
D 75-79
F below 74

The meaning of the letter grades follows the SLIS Grading Policy:

**A: Outstanding achievement.** Student performance demonstrates full command of the course materials and evinces a high level of originality and/or creativity that far surpasses course expectations. The grade of A+ is not granted in SLIS, except in very exceptional cases.

**A-: Excellent achievement.** Student performance demonstrates thorough knowledge of the course materials and exceeds course expectations by completing all requirements in a superior manner.

**B+: Very good work.** Student performance demonstrates above-average comprehension of the course materials and exceeds course expectations on all tasks defined in the course syllabus.

**B: Good work.** Student performance meets designated course expectations, demonstrates understanding of the course materials, and has performed at an acceptable level.

**B-: Marginal work.** Student performance demonstrates incomplete understanding of course materials.

C+, C, C-: Unsatisfactory work and inadequate understanding of course materials.

**D+, D, D-:** Unacceptable work; course work completed at this level will not count toward the MLS degree.

**F: Failing.** May result in an overall grade point average below 3.0 and possible removal from the program.

**Late and Incomplete Work**

Students may request an assignment extension due to personal or professional emergencies. These requests must be made prior to the due date. Extensions beyond a couple days will result in lose of points.
A final grade of "I" or "Incomplete" will NOT be given except in extreme situations. Please let me know if you're having difficulty completing the requirements of this course.

**IUPUI Mission Statement**

The Mission of IUPUI is to provide for its constituents excellence in Teaching and Learning; Research, Scholarship, and Creative Activity; and Civic Engagement.

With each of these core activities characterized by Collaboration within and across disciplines and with the community; A commitment to ensuring diversity; and Pursuit of best practices.

IUPUI’s mission is derived from and aligned with the principal components—Communities of Learning, Responsibilities of Excellence, Accountability and Best Practices—of Indiana University’s Strategic Directions Charter.

**IUPUI Values Statement**

IUPUI values the commitment of students to learning; of faculty to the highest standards of teaching, scholarship, and service; and of staff to the highest standards of service. IUPUI recognizes students as partners in learning. IUPUI values the opportunities afforded by its location in Indiana’s capital city and is committed to serving the needs of its community. Thus, IUPUI students, faculty, and staff are involved in the community, both to provide educational programs and patient care and to apply learning to community needs through service. As a leader in fostering collaborative relationships, IUPUI values collegiality, cooperation, creativity, innovation, and entrepreneurship as well as honesty, integrity, and support for open inquiry and dissemination of findings. IUPUI is committed to the personal and professional development of its students, faculty, and staff and to continuous improvement of its programs and services.

**Student Academic Conduct**

There is extensive documentation and discussion of the issue of academic honesty in the IUPUI Student Code of Conduct.

Students should be sure to read the Student Code of Conduct. The Academic Handbook states that faculty members have the responsibility of fostering the “intellectual honesty as well as the intellectual development of students.... The faculty member should explain clearly the meaning of cheating and plagiarism as they apply to the course... Should the faculty member detect signs of plagiarism or cheating, it is his or her most serious obligation to investigate these thoroughly, to take appropriate action with respect to the grades of students, and in any event to report the matter to the Dean of Students. The necessity to report every case of cheating, whether or not further action is desirable, arises particularly because of the possibility that this is not the student’s first offense, or that other offenses may follow it. Equity also demands that a uniform reporting practice be enforced; otherwise, some students will be penalized while others guilty of the same actions will go free.” (p. 172). For more information, go to [http://www.iupui.edu/code](http://www.iupui.edu/code)
**Student Accommodations for Disability**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities.

Students needing accommodations because of disability must register with Adaptive Educational Services and complete the appropriate form before accommodations will be given. The AES office is located in Taylor Hall Room 127, 815 W Michigan St Indianapolis, IN 46202 and may be reached by phone 317/274-3241 or 317/278-2052 TTD/TTY; by fax 317/274-2051; or by email aes@iupui.edu

For more information, go to [http://diversity.iupui.edu/aes/](http://diversity.iupui.edu/aes/)

**Administrative Withdrawal**

A basic requirement of this course is that you will participate in class and conscientiously complete writing and reading assignments. Keep in touch with me if you are unable to attend class or complete an assignment on time. If you miss more than half our class assignments within the first four weeks of the semester without contacting me, you will be administratively withdrawn from this section. Our class has assignments each week; thus if you miss more than three assignment in the first four weeks, you may be withdrawn.

Administrative withdrawal may have academic, financial, and financial aid implications. Administrative withdrawal will take place after the full refund period, and if you are administratively withdrawn from the course you will not be eligible for a tuition refund. If you have questions about the administrative withdrawal policy at any point during the semester, please contact me.

Learn more at [http://registrar.iupui.edu/withdrawal-policy.html](http://registrar.iupui.edu/withdrawal-policy.html)
Course Topics and Calendar

Week 1
Overview of Digital Libraries

Week 2
Collection Development and Preservation

Week 3-4
Digital Objects (textual documents, images, audio, video)

Week 5-6
Organization and Representation of Information

Week 7-8
Information Architecture

Week 9
Information Access, User Behavior and Interaction

Week 10
Services

Week 11
Management and Evaluation

Week 12
Issues

Week 13
Digital libraries and the future