

Fall 2021 Graduate Course Descriptions Information School

March 12, 2021 – Subject to Change

LIS 500: Code and Power

Does the Internet flatten the world? How do race, class, gender and other forms of intersectional oppression show up in code? What are the social relationships that structure our Digital Society? Overcoming gaps in information access and participation starts with you. This course combines an introduction to computer scripting with a critical examination of inequality in the contemporary computing industries. Students will increase their computing confidence through interactive hands-on exercises to gain mastery of core scripting concepts applicable to a variety of coding tools (e.g., HTML, PHP, SQL). At the same time, students will learn to design and assess inclusive computing activities and events through hands-on projects.

LIS 501: Introduction to Text Mining

This course teaches computational methods and skills to understand text data. We cover popular Natural Language Processing (NLP) concepts & techniques, their text mining applications, and related Python programming examples. The covered topics include:

- Working with text data: preprocessing (e.g., tokenization, cleaning, normalization), text parsing and tagging (e.g., part-of-speech tagging, dependency parsing), information extraction (e.g., noun phrases and named entities)
- Modeling text content: n-grams, language models, distributed representations of texts (such as word embeddings), thesaurus and knowledge bases, text similarity
- Processing and mining text data: text clustering, topic modeling, text classification, sentiment analysis, sequential tagging, text retrieval, text visualization
- Applications and societal issues, e.g., social media text analysis, bibliometrics analysis, biases of NLP models

COMP SCI/LIS 570: Introduction to Human Computer Interaction

User-centered software design; (1) principles of and methods for understanding user needs, designing and prototyping interface solutions, and evaluating their usability, (2) their applications in designing web-based, mobile, and embodied interfaces through month long group projects.

LIS 601: Information: Perspectives and Contexts

Provides an introduction to major themes and topics in information studies as well as the language and literature of the field and related disciplines. This course is about information, information agencies, and being an information professional. We look at social, historical, ethical, legal and political issues surrounding information dissemination, use, control, and management.

LIS 602: Information: Organization and Search

This course introduces basic concepts and principles of information organization and online searching. Students gain knowledge of information organization and retrieval theories and methods and knowledge of large database structures and database searching techniques. Students critically examine the impact of information organization practices on organizations and culture. Through readings, lectures, discussions, and exercises, students will learn how to develop information organizing systems and to evaluate and improve search systems.

LIS 603: Research and Assessment for Information Professionals

Introduces students to research, evaluation and assessment practices. Prepares students to design and implement a research or assessment project. Provides an overview of commonly employed data collection

methodologies and introduces students to both qualitative and quantitative analysis approaches that may be employed in evaluation, assessment and research.

LIS 615: Project Management and Systems Analysis

Project management skills are vital in EVERY discipline. Why not learn how to effectively communicate with a customer, manage a diverse team, elicit project needs, estimate schedules, manage costs, and close a project? This course is designed to explore the concepts and practical implementation of project management principles. In a practical sense, students will examine the use of project management to successfully initiate, plan, execute, control and close a project. Special attention is given to the current standards of the Project Management Institute. (Formerly taught as a 640 Topics)

LIS 616: Records Management (Online)

An introduction to the role of records in society and to the principles and practices involved in managing records (both paper and electronic) in private and public sector organizations.

LIS 619 Music Research Methods and Materials

Cross-listed Music Department class. Must have a strong background in music theory. Historical and contemporary bibliography resources for musical scholarship; general reference tools of scholarly work and specific musicological works.

LIS 620: Field Project in Library and Information Agencies

The purpose of this course is to provide students with the opportunity to gain professional experience in an information agency. The course consists of a minimum of 120 hours in the agency and participation in an online class, in which students discuss the placements and the application of professional theory to the work place. Students work with the supervising professional at your agency to determine work responsibilities and schedule; student schedules must be flexible enough to accommodate possible weekday, weeknight and weekend hours.

For directions on how to request a placement and the placement request form,

see: <https://ischool.wisc.edu/current-students/practicum/>

Requests for Fall placements should be sent to Debra Shapiro (dsshapiro@wisc.edu) the course instructor, and are due **April 16th** – since this is after Fall enrollment opens, it's OK if students register for LIS 620 before submitting a placement request.

Note: School library concentration students should contact Allison Kaplan (agkaplan@wisc.edu)

LIS 622: Children's Literature

Survey class focusing on literature for children (birth to age 14) in all of its formats also includes techniques of reading guidance in school or public libraries in relationship to developmental interests, needs and skills of children along with issues related to children's literature and literacy in the classroom and in the home

LIS 632: Metadata Standards (Online)

This course provides an overview of the design and use of metadata for resource description, management, and retrieval in digital environments. Students learn to implement and evaluate standard schemes used in cultural heritage, business data, and other contexts including Dublin Core, MODS, VRA and others. Issues of information behavior, vocabulary control, sharing and interoperability, quality assurance, and automation are covered.

LIS 635: Reference and Information Service (Online)

This course introduces the theory and practice of reference and information service. Themes include the history and ethics of information service in libraries, theories of information behavior, the reference

interview, and reference and information service design and management. Students will gain familiarity with a wide range of reference resources and strategies.

LIS 639: Pedagogical theory and practice for information professionals (Online)

Introduction to pedagogical theory, training tools, and teaching skills needed in a variety of informational instructional settings such as academic and public libraries, archival institutions, museums, and software training facilities. Applicable for students interested in information literacy instruction, online teaching, technology training, and group instruction.

LIS 640-001, 002: Topic: Web Archiving (1 cr; meets session AAE, meets 9/2-10/04): Online

Much of what we write, create, and document now exists exclusively on the web, and web archiving — the process of collecting, preserving, and providing access to web materials — is what enables individuals to build and maintain collections of these at-risk resources. This course will teach students the mechanics of web archiving and its relation to familiar archival concepts, like collection building and appraisal, access and use, and ethics. Students in this course will also have the chance to complete hands-on work with web archiving tools like Archive-It and Webrecorder.io.

LIS 640-003,004: Topic: Creating Inclusive Environments (1cr; meets session AAE: Online 9/2-10/4)

How do we turn our "good intentions" into daily actions that create inclusive environments? In this 5 week course we'll examine ideas of neutrality, unnecessary barriers, and impacts of language. You'll get practice recognizing subtle obstacles and coming up with creative solutions, and leave the course with new tools to build equity and make our rhetoric about inclusion more consciously and concretely a reality.

LIS 640-005, 006: Topic: Genealogy (1 cr; meets session FEE; Online 10/5-11/08)

This course provides an introduction to genealogy and genealogical research, the basic research cycle, and common records and resources, and strategies used to complete family history reference requests. We'll explore the history and evolution of genealogy as a popular pastime in the United States, the growth and monetization of genealogy services, and other current topics including DNA testing and crowd-sourced research. Students will gain confidence and skills to handle basic genealogical research questions through lectures, readings, discussions, and by completing multiple reference-related assignments. Students will explore the relationship between genealogists and libraries/archives and how to serve this population through focused collection development and public service.

LIS 640-007, 008, 009: Topic: Power Searching (1 cr; meets session FEE; Online 10/5-11/08)

This course centers on the search skills and competencies necessary for in-depth literature searching in specialized databases. It is intended for people in any field of study, from the humanities through the sciences, who need to do a "deep dive" into large bodies of scholarly publications. Possible reasons for doing this include (but are not limited to) literature reviews; systematic reviews; dissertations; and books. The class meets twice a week for 75 minutes over 5 weeks, with the second session every week being a hands-on lab session. Students can customize their learning to focus on particular outputs in particular domains.

LIS 644: Digital Tools, Trends, and Debates

This course provides an overview of information and communication technologies and digital media that are currently widely used in society at large, in relationship to cultural heritage organizations, research and education, and information agencies within the context of current controversies surrounding technology use.

The course goals include providing students with:

- Ability to evaluate, plan and hire for, select, and safely and securely use digital technologies;
- Awareness of the social and legal forces that create digital technologies and technology standards, controversies surrounding their development, use and modification, and the complex relationship between digital technologies and the future of information agencies;
- An understanding that acquiring technical knowledge takes a commitment to life-long learning;
- Development of ethical and principled approaches to technology adoption and education.

LIS 646: Information Architecture

This course provides an overview of the fundamentals of information architecture (IA) and User Experience Design (UX), as well as opportunities to use these concepts in practice. The course looks at the ways in which traditional library science skills and knowledge, such as the organizing and classifying of information, and knowledge of the behavior of information seekers, apply to web design. The course also introduces the concepts of web standards, usability and accessibility, project planning, project management, web evaluation, interaction design, and website design as an ongoing, iterative process.

LIS 650: History of the Book

The purpose of this course is to introduce students to the history of books and print culture in the West from ancient times to the present with a focus on how reading and writing have influenced social, cultural, and intellectual life. The course will also emphasize how historians of books and print culture work, including the methodologies, theories, and sources for the study of the history of books and printing.

LIS 654: Information Services Management [Tier M course]

Survey of concepts and skills necessary to manage in an information services organization. Assignments will both focus on developing practical skills and take a critical look at different philosophies of management and leadership. Areas of coverage include topics such as strategic planning, personnel, collaboration, advocacy, budgeting.

LIS 655: Collection Management (Online)

The study of collection management in all types of libraries and information centers. Includes analysis of information needs, criteria for selection, sources for reviews, collection use evaluation, weeding, preservation, and contemporary changes in access and ownership.

At the conclusion of this course, students should be able to:

- Understand the information life cycle, and specifically the role libraries play in that cycle;
- Identify how print and electronic documents are created, published, and acquired by the library;
- Identify core user groups and key characteristics of the information types and genres they require through analysis of user needs, the user base, and the collection; and
- Understand, acquire, and critique critical opinions from professional and lay sources useful in the information professions

LIS 705: Introduction to Analytics for Decision Making

Introduces key stages in the processes of gathering and analyzing data for decision making, including tasks, methods, and tools used at each stage. Topics include developing the research question from organizational goals, choosing appropriate data collection methods, sampling, basics of measurement and question design, managing and visualizing data, descriptive statistics and basic inferential statistics such as correlations, regressions, and ANOVA.

LIS 706: Data Mining Planning and Management (Online)

Prereq of 603, 705 or other recent introductory statistics course. An introduction to data mining concepts, tools and processes. Prepares students to plan, manage and assess a data mining project in light of organizational strategic goals. Introduces stages of a data mining project, data mining project evaluation frameworks, and principles of data ethics related to data mining. Learn and apply introductory data mining tools and techniques for data clustering, dividing data into classes, making predictions and identifying networks.

LIS 707: LIS 707: Data Visualization (Online)

This course will introduce key concepts in data visualization and communication for the purposes of decision making in organizations. It covers how and why visualization can be an effective tool for summarizing, analyzing and communicating about data, as well as the limitations and challenges in using data visualizations, including misrepresentation and bias. Emphasizing hands-on and practical learning.

LIS 711: Data Management for Information Professionals

This course surveys management of many forms of digital data in non-profit, government, research, and industry contexts. It examines requirements and business drivers, ethics and legal requirements, design patterns and architecture, infrastructure, processes, human factors, security, and assessment.

LIS 712: The Public Library

The course is designed to be a thorough introduction to public library services and administration. Topics include history, structure and governance; finance and budgeting; management and planning; the library's role in the community; personnel management and staff development; public relations and marketing; legislation and advocacy; services, programming and outreach; technology; and facilities, building and maintenance. We will consider developing trends in consumer behavior, particularly in regards to digital technologies, that have an impact on the types of services the public expects from a library. There is also an emphasis on the importance of the Library Director, Department Heads, and Library Board working together for the best interests of the community they serve.

LIS 734: Introduction to Archives

This course will serve as an introduction to the field of archives, providing students with an overview of their history and purpose and to the concepts integral to archival work. Through a combination of readings, discussions, writing, and project work, students will be introduced to archival appraisal, arrangement & description, reference, outreach, preservation, ethics, technology, project management, and advocacy in relation to all formats of archival materials (manuscript, digital, photographic, audiovisual, and object-based records) in many types of archival institutions. The course offers an introduction and is appropriate for all students, but will provide an important framework for students planning to follow the archives concentration.

LIS 751: Database Design

Introduction to database management systems, the database design process and database management issues, current trends and developments in the database field with a focus on library database systems.

LIS 772: Library Services to Children and Young Adults (online)

This course covers the theory and structure of public library service to children and teens [ages 0-18], its place within the community, and techniques and practical aspects of youth librarianship.

LIS 855-001,002: Topic: Leadership (Online - 1 cr.; meets session FEE 10/5-11/8)

This course will provide a framework for understanding how to lead in today's diverse organization environments - and from any level within the organization. Student will gain an understanding of the theories and styles of leadership and the fundamental skills needed to lead in today's organizations. We'll explore individual leadership styles and how to build support and overcome challenges within our organizations to achieve our personal, professional and organizational goals.

LIS 925: PhD Professional Writing and Research Seminar - 1 cr.

Provides professional development for doctoral-level researchers. Includes presentations by guest speakers and/or faculty members, writing workshops, reflection assignments and student presentations.

LIS 950: PhD Seminar: History

An in-depth examination of some aspect(s) of the historical and philosophical foundations of LIS as it has been transformed through time and space, within the broader cultural context.

LIS 975: PhD Seminar: Seminar in Information Organization and Access

This course will be a mix of lectures and seminars. We cover the latest research and techniques in text information systems, especially information retrieval systems (e.g., web search engines) and conversational agents (e.g., Siri, Alexa, Google now). We will introduce and discuss:

- conceptual models for information behavior, information access, and human information processing.
- fundamental techniques for text retrieval systems: text processing, indexing and searching, query understanding and modeling, and ranking and presenting search results.
- conversational agents and dialog systems: conversational user interface, dialog state modeling and management, response generation and synthesis, chatbots, intelligent assistants, and other applications.
- evaluation of text information systems, including both system-oriented and user-oriented evaluation and both online and offline evaluation.
- human factors, bias and fairness issues, and user modeling techniques for text information systems.