

## **Spring 2022 Graduate Course Descriptions Information School**

October 21, 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

### **LIS 510: Information Security and Privacy (Online)**

Introduction to personal, social, and organizational concepts, skills, and processes related to the information security of individuals and organizations. Preparation to help individuals and organizations enhance their own security and privacy, especially but not exclusively online. Companion course to CS 642 “Introduction to Information Security.” No prior technology or computer-science experience is assumed.

### **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 (Online)**

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 603: Research and Assessment for Information Professionals (Face-to-Face and Online)**

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 612: User Experience Design 2 (Face-to-Face and Online)**

Advanced study of UX design. Introduces processes of ideation, key concepts of visual design, conceptual and interaction design, low and high-resolution prototyping of design techniques. Applications include drafting designs based on user models and initial testing of prototypes.

**LIS 620: Field Project in Library and Information Agencies (Online)**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 Spring placements should be sent to Debra Shapiro ([dsshapiro@wisc.edu](mailto:dsshapiro@wisc.edu)) the course instructor, and are due **November 22** – since this is after Spring enrollment opens, it's OK for students to register for LIS 620 before submitting a placement request.

### **LIS 629: Multicultural Literature and Resource for Children and Youth (Online)**

This course focuses on issues of diversity as represented in literature and other media for children and young adults both in US-based and global-based literature. In this class, we will employ a sociocultural approach to consider representation of ethnicities, socioeconomic status, gender, sexual orientation and (dis)ability. A range of critical issues is addressed including authenticity, representation, cultural correctness, reader response and intellectual freedom. Goals are for students to be able to advocate for, promote, and assess multicultural resources; develop a collection; and understand issues related to cultural competence and reader response.

### **LIS 631: Literature and Resources for Youth**

This course provides a survey of media interests and needs of young adults (media include books, film, television, audio, and various production technologies). The course involves a critical examination of media trends, materials, selection criteria, guidance for individual users, and censorship problems (as they relate to young adults). We cover evaluation, selection, and use of print, digital, and other multimodal resources for youth (ages 13-18). Students will develop an ability to advocate for and promote materials according to various needs of young adults (intellectual, emotional, social and physical).

### **LIS 635: Reference and Information Service**

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 640-001, 002: Topic: Tribal Libraries, Archives & Museums (Face-to-Face) (3cr)**

This course provides an overview of, and practical experience with, the history, development, and current issues facing tribal libraries, archives, and museums, with an emphasis on Wisconsin tribal cultural

institutions. The course is structured around a combination of classroom discussions and lectures, as well as onsite visits to tribal cultural institutions, and attendance of local events relevant to this course.

**LIS 640-003: Topic: Description and Arrangement (Face-to-Face) (3 cr)**

Current issues in technologies for information processing and retrieval in libraries and information agencies. This topic covers archival arrangement and description, including Encoded Archival Description.

**LIS 640-004, 005: Topic: E-Portfolio and Job Search (Online) (1 cr; meets session AEE; 01/25-02/27)**

This course provides an opportunity for structured support to help you complete your e-portfolio, prepare for your job search, and think about both in terms of lifelong learning and career development. We will workshop how to construct a good justification statement for the Program Level Learning Outcomes. Topics for career planning/job search include: developing a job search strategy, how to write effective cover letters and resumes, interview prep, and next career stage planning. Career resources that are available to you now and after you graduate will be referenced. You need to have completed 27 credits to enroll.

- This course will have remote-synchronous class meetings each Thursday from 5:30 to 8 PM for the duration of the course. There are no in-person class sessions.

**LIS 640-006 Strategic Communications Planning (Face-to-Face) (1 cr; meets session FEE; 02/28-04/03)**

Current issues in library and information studies that are not addressed in sufficient depth in existing courses or that combine facets of several existing courses.

**LIS 640-007, 008: Topic: Web Development (Online) (3 cr)**

This course provides a hands-on user experience design (UX) approach to installing, configuring, and adapting open source content management and web-publishing systems. Students will learn web development best practices and explore some of the open source tools for creating digital experiences including Wordpress, Drupal, and Omeka.

**LIS 644: Digital Tools, Trends, and Debates (Online)**

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 651: Cataloging and Classification (Online)**

This course introduces different approaches and systems currently used for organizing library materials. Through lectures, discussions and exercises, students will acquire practical knowledge of rules, standards,

and tools used for bibliographic description and control, classification, and subject/content access. Standards/systems that are covered include: RDA, MARC, DDC, LCC, LCSH.

### **LIS 654: Information Services Management (Online)**

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**

This course introduces students to the principles and issues involved in developing and managing collections in all types of libraries and information centers. Topics covered include user needs assessment, policy development, budgeting and acquisitions, selection, evaluation, weeding, resource sharing, preservation, changes in access and ownership, censorship, and intellectual freedom.

### **LIS 661 Information Ethics and Policy**

Overview of modern ethical theories and how they inform information agency policies and practices; examines selected policy issues relating to information and communications; includes topics such as intellectual property, privacy, censorship, equity of access.

### **LIS 668: Digital Curation and Collections (Online)**

The course introduces core concepts and new developments in digital curation, preservation and digital libraries. Topics include: digitization; digital collections planning and evaluation; intellectual-property issues; metadata as applied in digital collections; digital collection technologies and workflows; basics of research data management; trusted digital repositories; digital preservation; media archeology; sustainability.

### **LIS 705: Introduction to Analytics for Decision Making (Online)**

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**

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 722: College and University Libraries (Online)**

An overview of contemporary issues impacting libraries located at institutions of higher education spanning community colleges to large research universities.

Topics covered include, but are not limited to:

- \* changes in the higher education environment in the US: state funding, for profits, MOOCs, new campus populations and their needs, safety issues, etc.

- \*pressures to provide evidence for student learning or retention and more broadly conveying the mission and value of the library to decision makers on campus

- \* the role of libraries in helping researchers manage research data including an overview of federal rules, funder regulations, data management consulting and professional associations that support librarians in this work
- \* library roles in promoting copyright education, open access, institutional repository use, open textbooks, etc.
- \* involving libraries in campus diversity initiatives/efforts and more broadly involving the campus library in the social life of the campus
- \* trends in campus library space use: material storage v. user space; partnering with other campus service groups

### **LIS 732: Strategic Information Services (Online)**

Developing, managing and evaluating information services to corporate, government, research, small business, and community organizations. Overviews of knowledge management, business intelligence, industry analysis, information brokering. Gain skills in information service entrepreneurship and marketing information services. Overview of changes within the profession and networking within the professional community.

### **LIS 751: Database Design**

Principles and practices of database management and database design. Discussion and practice cover database application lifecycle, data modeling, relational database design, SQL queries, reports and other interfaces to database data, and documentation. Big data and No-SQL movement.

### **LIS 768: Digital Humanities Analytics (Face-to-Face)**

In this course students learn and apply introductory technology skills to analyze and plan data-driven projects in the humanities, social sciences and other fields. Topics include identifying relevant existing digitized materials, web scraping, text encoding, topic modeling, mapping, social network analysis, and other approaches for collecting, analyzing and visualizing data. An introduction to Python is a key part of this course, which employs hands-on activities and collaboration with campus researchers to give students the tools they need to explore exciting new approaches to research and outreach using primary sources.

### **LIS 855-001,002: Topic: Fundraising (Online) (1 cr; meets session KEE; 04/04-05/06)**

### **LIS 855-003,004: Topic: Budgeting (Online) (1 cr; meets session AEE January 25 – February 27)**

Overview of the concepts and skills needed to interpret, create and reconcile budgets for programs, grant proposals, departments, and organizations. This course prepares information professionals to understand the terminology, methods, and tools of budgets, finance, and accountability.

### **LIS 875-001, 002, 003: Topics in Information Processing and Retrieval Information Use/Users in Context**

This course provides an overview of research on humans' information needs, information seeking and use behavior in their various roles, situations, and contexts. It also explores different approaches to studying users' information behavior and to improving information systems and services to meet users' needs and preferences.

### **LIS 875-004, 005: Technical Foundations of Information Science**

Foundations of methods and tools for automatic information processing and information systems, including related Python examples. Topics include:

- Data and processing basics, e.g., data types, data structures, control, function, parallelization
- Data I/O from different sources, including files, network, and databases
- B/S information system basics, e.g., MVC framework, web frontend & backend basics
- Design issues, e.g., object-oriented design, design patterns, refactoring, unit-testing

**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 940: Seminar in Information Use/Users Contexts**

This course provides an overview of research on humans' information needs, information seeking and use behavior in their various roles, situations, and contexts. It also explores different approaches to studying users' information behavior and to improving information systems and services to meet users' needs and preferences.