The Information School's Fall 2024 Course Descriptions
last updated March, 2024; subject to change
see Course Search and Enroll for complete information

UNDERGRADUATE COURSES:

LIS 102: Introduction to Computing (campus)
Provides a broad overview of computing at an introductory level, including topics such as security, robotics, and artificial intelligence. Increases understanding of how computers work and how algorithms solve problems. Design and implement creative applications in an introductory coding environment. Provides a broad overview of computing and algorithms without an emphasis on programming.

LIS 201: The Information Society (campus)
Examines important social, legal, and historical contexts of information and information technologies, and explores significant social, legal, and moral questions that surround those technologies.

LIS 202: Informational Divides and Differences in a Multicultural Society (campus)
Explores the impact of and barriers to access to information on the lives of low-income ethnic/racial minority communities in the United States. Provides introduction to contemporary information society from a sociological perspective.

LIS 220: Digital Footprints: Privacy and Technology (campus)
Each of us leaves behind digital information traces, our "digital footprint", as we go about our daily lives. Learn about the different kinds of technologies involved in capturing this information, who owns it and controls it, and how it is used to make our lives easier and less private at the same time. Consider what information can be tracked and inferred about us based on our digital traces, what is gained (and lost) as individuals and society by allowing our digital footprints to continue to expand, and debate what future technologies and policies concerning this information should be like.

LIS 350: History and Future of Books (campus)
Framed by a question about what books are, what books have been, and what books might be: past, present, and future. It assumes that "book" is a placeholder term for an object that becomes the site of questions and debates about a variety of media, expressions, and recording practices. A goal of the class is to understand the book as an active technology that shapes peoples, perceptions, and cultures rather than serving as a passive receptacle of them. This course will approach the book from a number of perspectives including book history, digital humanities, media studies, and human computer interaction, as well as examining industry-oriented interests such as e-reader manufacturing, book retail, and publishing.

LIS 351: Introduction to Digital Information (online LEC/campus LAB)
Prepares students to use information technologies to solve problems and help people through implementing information infrastructures such as websites, databases and metadata. Students will explore information access, information representation, usability and information policy issues, and increase their understanding of the social impacts and social shaping of information infrastructures.

LIS 407: Data Storytelling with Visualization (campus)
Introduction to data visualization including how and why visualization can be an effective tool for summarizing, analyzing and communicating about data, the limitations and challenges in using data visualizations, including misrepresentation and bias and planning appropriate types of visualization(s)
based on source data, audience, and goals. Instruction will include hands-on experience with popular visualization software platforms to develop visualizations and presentations.

**LIS 440: Navigating the Data Revolution: Concepts of Data & Information Science (campus)**
Provides an introduction into the world of Data Science. Includes hands-on projects using scenarios involving analysis of real-world data and development of graphical visualizations. Introduces statistical tests, data management, data programming, data ethics and visualization of data.

**LIS 461: Data and Algorithms: Ethics and Policy (campus)**
An introduction to ethical, legal and policy issues related to analytics, "big data" and algorithms to support decision making. Gain familiarity with major debates and controversies in a variety of contexts. Critically analyze course materials and apply moral reasoning and legal concepts to assess case studies and critique arguments made by others.

**LIS 464: Applied Database Design (campus)**
Introduces the applications of databases to real-world data and information problems. Overview of the principles and practices of user-oriented database design, management, and application. Discussion and practice cover database application lifecycle, data modeling, relational database design, SQL queries, reports and other interfaces to database data, and database documentation.

**LIS 470: Interaction Design Studio (online LEC/campus LAB)**
Introduces interaction design, an approach to designing digital information systems that places humans and their needs at the center of the design process. Explores how core principles of design, design processes, cognition, information science and human values inform the design of interactive information systems. Discussion and practice apply the data-driven process of human-centered interaction design to develop new digital products and services.

**GRADUATE COURSES:**

**LIS 500: Code and Power (online)**
Prepares students to analyze and critique the portrayal of race, gender and computing in various media outlets and to consider their own potential as contributors to the computing industries in light of media portrayals and their own self-perceptions. As students confront assumptions about gender race and computing, this course will also equip them with the skills necessary to confidently design, develop, and discuss web scripting aspects related to HTML/CSS/PHP website development.

**LIS 501: Introduction to Text Mining (campus)**
Introduces computational methods and tools for processing, analyzing, and understanding text data. Topics include text data preparation and preprocessing, models of text content and meaning, exploratory text analytics, text classification, information extraction from texts, ethical issues in natural language processing (NLP), and related applications in information sciences and other fields. Develops practical skills to design and implement text mining solutions using popular NLP tools and programming packages.

**LIS 510: Human Factors in Information Security (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 (campus)
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 (campus or 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 602: Information: Organization and Search (campus or online)
Introduces basic concepts and principles of information organization and online searching. Gain knowledge of information organization and retrieval theories and methods and knowledge of large database structures and database searching techniques. Critically examine the impact of information organization practices on organizations and culture. Learn how to develop information organizing systems and to evaluate and improve search systems.

LIS 603: Research and Assessment for Information Professionals (campus)
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 611: User Experience Design 1 (campus or online)
Introduction to the user experience design including key stages of the design process, design ethics, and the methods and tools involved at each stage of design. Conduct formative research on clients, users, use contexts and tasks. Gain experience with user research methodologies and learn to create intermediate design tools such as personas. Develop and present a design proposal for a chosen project.

LIS 613: User Experience Design 3 (campus)
Conduct formal evaluations of the user experience (UX) or usability of a digital system. Gain familiarity with the evaluation and research process including key stages, tasks for each stage, common data collection and analysis methods, and common tools employed in the field. Gain experience with a variety of UX evaluation approaches. Collect pilot data and develop a proposal for further UX testing.

LIS 615: Systems Analysis and Project Management for Information Professionals (campus)
Introduces established and evolving methodologies for the analysis, design, and development of information systems involving people, data/information and technologies. Introduces students to basic concepts and tools of project management. Learn to apply systems analysis and project management methods to solve real world problems involving information flows and interactions.

LIS 616 Records Management (campus)
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 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 workplace. Students work with the supervising professional at their hosting site to determine work responsibilities and schedule; student schedules must be flexible enough to accommodate possible weekday, weeknight, and weekend hours.
https://ischool.wisc.edu/programs/ma-library-information-studies/ma-requirements/practicum/

**LIS 622: Children’s Literature (campus)**
Traditional sources to the present; criticism and evaluation; contemporary trends and issues. Techniques of reading guidance in school or public library in relationship to developmental interests, needs and skills of children.

**LIS 632: Metadata Standards and XML (online)**
An overview of the design and use of metadata for resource description and retrieval in digital environments. Learn to implement and evaluate standard schemes used in cultural heritage, commercial and other contexts including Dublin Core, MODS, VRA and others. Issues of information behavior, interoperability, quality control, vocabulary control and project management 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 Topics in Library and Information Studies**
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 Topic: Services to Diverse Populations (3 credits, campus)**
This class will focus on working with diverse communities in a library setting, exploring such topics as equity of access, cultural competence, and community engagement. Over the course of the class, students will develop a toolkit on working with a specific community of their choosing, featuring advice, best practices, policies, and resource lists.

**LIS 640 Topic: Web Development (3 credits, campus)**
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 Wordress, Drupal, and Omeka.

**LIS 640 Topic: Community Engagement (3 credits, online)**
This course provides an overview of community engagement in both theory and practice. Students learn about strategies, best practices, and methodologies for libraries and information organizations to connect with their communities and build strong relationships. The course includes topics such as identifying community needs, conducting inclusive and equitable community
conversations, developing outreach programs, forming partnerships, and leveraging technology to enhance the effectiveness of engagement efforts.

**LIS 644: Digital Tools, Trends, and Debates (campus)**
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: Introduction to Info Architecture and Interaction Design for the Web (campus)**
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 654: Information Services Management (campus)**
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 655: Collection Management (online)**
This course introduces students to the principles and issues involved in developing and managing collections in all types of libraries and information centers. Each student works with a real collection of their choice that fits their career development goals. We explore collection development’s underlying systems, processes, and workflows, all essential to the functioning of the library. This knowledge will give students the mental models needed to understand the relationships of other library and information concepts to the overall library system. 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.
- This will include reviewing
  - The publishing industry
  - Collection development policies
  - Challenges to materials, censorship, and filtering
- 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
- Understand, acquire, and critique critical opinions from professional and lay sources useful in the information professions
LIS 663: Introduction to Cyberlaw (campus)
This is an introductory course in the law of cyberspace. The emphasis is on critical thinking about a broad variety of legal and policy problems that arise because of ever-changing information and communication technologies.

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.

LIS 677: Concepts and Tools for Data Analysis and Visualization (campus)
An introduction to information and data visualization: introduction to major concepts, instruction in specific tools for data analysis and visualization, and application of skills in a final project.

LIS 678: Preservation and Conservation of Library and Archives Materials (online)
Basic concepts, principles, and approaches to protection and care of library and archives material, including nature and structure of paper- and plastic-based materials, deterioration, preservation management, disaster prevention, reformatting, and repair.

LIS 705: Introductory 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 707: Data Visualization and Communication for Decision Making (campus or online)
Introduces key concepts in data visualization and communication including how and why visualization can be an effective tool for summarizing, analyzing and communicating about data, and limitations and challenges of using visualization techniques. Students will use contemporary software to develop visualization dashboards and presentations as well as plan appropriate types of visualization(s) based on source data, audience, and goals, evaluate visualizations for effectiveness and bias.

LIS 712: The Public Library (campus)
Library service based on knowledge of structure and government, personnel, resources, legislation, building, management and planning, public relations and marketing.

LIS 734: Introduction to Archives and Records Management (campus)
An introduction to the archives profession and basic theory and practice of archives and records administration, including the uses of primary sources in research, appraisal, access, and preservation.

LIS 751: Database Design for Information Professionals (online)
Introduction to contemporary database management systems, the design process employed when implementing databases to solve data and information management problems, developing queries and scripts, and other issues in employing databases to solve organizational information and data challenges.

LIS 755: Electronic Resource Management & Licensing (online)
Management, policy and technology issues associated with licensed digital library resources such as
e-journals, e-books, full text and citation databases, digital audio and video collections, and e-references resources. Includes a significant copyright and licensing component.

**LIS 803: Computational Research Methods (campus)**
Provides a broad overview of ways of formulating and investigating novel questions with tools from educational data mining and learning analytics including social network analysis, natural language processing, Markov modeling, Bayesian inference, and agent-based modeling.

**LIS 855 Topics in Information Agency Management**
Critical examination of selected management techniques in the areas of materials control, physical plant operations, personnel programs, budget preparation and statistical reporting. May also focus on a particular type of information agency; e.g., data analysis centers, research libraries, or public libraries.
- **LIS 855 Topic: Leadership (session KEE November 11 - December 11 1 credits, online)**
- **LIS 855 Topic: Grant Writing (session AEE September 4 - October 6, 1 credit, online)**
- **LIS 855 Topic: Community Archives (details forthcoming)**

**LIS 875 Topics in Information Processing and Retrieval**
Current issues in technologies for information processing and retrieval in libraries and information agencies.
- **LIS 875 Topic Technical Foundation of Information Science (3 credits, online)**

**LIS 925: Professional Writing and Reading (PWR) Seminar (1 credit, campus)**
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 Use and Users in Context (campus)**
Exploration of information needs, information seeking behavior, and information use by people in various roles, situations, and contexts that go beyond libraries. It includes exploring factors that influence a user's information needs and behavior.