## Class Schedule - Fall 2019

### Information Sciences

School of Information Sciences  
Associate Dean: Linda C. Smith  
School Office: 112A Library and Information Science Building, 501 East Daniel Street, Champaign  
Phone: 217 -333-3280  
www.lis.illinois.edu

**IS 107  Data Science Discovery**  credit: 4 hours.  
Same as CS 107 and STAT 107. See STAT 107

This course satisfies the General Education Criteria for a:  
Quantitative Reasoning I

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71693</td>
<td>Lecture</td>
<td>AL1</td>
<td>12:00 PM - 12:50 PM</td>
<td>MWF</td>
<td>THEAT - Lincoln Hall</td>
<td>Fagen-Ulmschneider, W</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Flanagan, K</td>
</tr>
</tbody>
</table>

Quantitative Reasoning I course.  
Students registering for this lecture are required to also register for a linked lab-discussion section. Lab sections AYD & AYL are held in computer labs to accommodate students without a laptop. All other sections are held in regular classrooms, requiring students to bring their own laptop.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71694</td>
<td>Laboratory-Discussion</td>
<td>AYA</td>
<td>02:00 PM - 03:50 PM</td>
<td>W</td>
<td>1038 - Foreign Languages Building</td>
<td></td>
</tr>
</tbody>
</table>

Quantitative Reasoning I course.  
Students in this section are expected to bring their own laptops to class. Sections AYD & AYL are held in computer labs for students without a laptop.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71695</td>
<td>Laboratory-Discussion</td>
<td>AYB</td>
<td>02:00 PM - 03:50 PM</td>
<td>W</td>
<td>331 - Gregory Hall</td>
<td></td>
</tr>
</tbody>
</table>

Quantitative Reasoning I course.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71696</td>
<td>Laboratory-Discussion</td>
<td>AYC</td>
<td>04:00 PM - 05:50 PM</td>
<td>W</td>
<td>203 - Noyes Laboratory</td>
<td></td>
</tr>
</tbody>
</table>

Quantitative Reasoning I course.  
Students in this section are expected to bring their own laptops to class. Sections AYD & AYL are held in computer labs for students without a laptop.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71697</td>
<td>Laboratory-Discussion</td>
<td>AYD</td>
<td>04:00 PM - 05:50 PM</td>
<td>W</td>
<td>G27 - Foreign Languages Building</td>
<td></td>
</tr>
</tbody>
</table>

Quantitative Reasoning I course.  
This section is held in a computer lab to accommodate students without a laptop. Students that have their own laptop are encouraged to register for one of the other sections. Both computer lab sections have corresponding sections at the same day/time in a regular classroom.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71698</td>
<td>Laboratory-Discussion</td>
<td>AYE</td>
<td>08:00 AM - 09:50 AM</td>
<td>F</td>
<td>2078 - Natural History Building</td>
<td></td>
</tr>
</tbody>
</table>
Quantitative Reasoning I course. Students in this section are expected to bring their own laptops to class. Sections AYD & AYL are held in computer labs for students without a laptop.

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Day</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>71699</td>
<td>Laboratory-Discussion</td>
<td>AYF</td>
<td>08:00 AM - 09:50 AM</td>
<td>F</td>
<td>Transportation Building</td>
</tr>
</tbody>
</table>

Quantitative Reasoning I course. Students in this section are expected to bring their own laptops to class. Sections AYD & AYL are held in computer labs for students without a laptop.

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Day</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>71700</td>
<td>Laboratory-Discussion</td>
<td>AYG</td>
<td>10:00 AM - 11:50 AM</td>
<td>F</td>
<td>313 - Davenport Hall</td>
</tr>
</tbody>
</table>

Quantitative Reasoning I course. Students in this section are expected to bring their own laptops to class. Sections AYD & AYL are held in computer labs for students without a laptop.

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Day</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>71701</td>
<td>Laboratory-Discussion</td>
<td>AYH</td>
<td>10:00 AM - 11:50 AM</td>
<td>F</td>
<td>312 - Davenport Hall</td>
</tr>
</tbody>
</table>

Quantitative Reasoning I course. Students in this section are expected to bring their own laptops to class. Sections AYD & AYL are held in computer labs for students without a laptop.

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Day</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>71703</td>
<td>Laboratory-Discussion</td>
<td>AYJ</td>
<td>02:00 PM - 03:50 PM</td>
<td>F</td>
<td>113 - Gregory Hall</td>
</tr>
</tbody>
</table>

Quantitative Reasoning I course. Students in this section are expected to bring their own laptops to class. Sections AYD & AYL are held in computer labs for students without a laptop.

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Day</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>71704</td>
<td>Laboratory-Discussion</td>
<td>AYK</td>
<td>04:00 PM - 05:50 PM</td>
<td>F</td>
<td>1051 - Lincoln Hall</td>
</tr>
</tbody>
</table>

Quantitative Reasoning I course. This section is held in a computer lab to accommodate students without a laptop. Students that have their own laptop are encouraged to register for one of the other sections. Both computer lab sections have corresponding sections at the same day/time in a regular classroom.

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Day</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>71705</td>
<td>Laboratory-Discussion</td>
<td>AYL</td>
<td>04:00 PM - 05:50 PM</td>
<td>F</td>
<td>G27 - Foreign Languages Building</td>
</tr>
</tbody>
</table>

**IS 202 Social Aspects Info Tech**  credit: 3 hours.

Same as INFO 202 and MACS 202. See INFO 202.
This course satisfies the General Education Criteria for a:
Social & Beh Sci - Soc Sci

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68248</td>
<td>Discussion/Recitation</td>
<td>AD1</td>
<td>02:00 PM - 02:50 PM</td>
<td>R</td>
<td>1110 - Foreign Languages Building</td>
<td></td>
</tr>
<tr>
<td>68249</td>
<td>Discussion/Recitation</td>
<td>AD2</td>
<td>03:00 PM - 03:50 PM</td>
<td>R</td>
<td>1024 - Foreign Languages Building</td>
<td></td>
</tr>
<tr>
<td>68250</td>
<td>Discussion/Recitation</td>
<td>AD3</td>
<td>04:00 PM - 04:50 PM</td>
<td>R</td>
<td>1024 - Foreign Languages Building</td>
<td></td>
</tr>
<tr>
<td>68251</td>
<td>Discussion/Recitation</td>
<td>AD4</td>
<td>09:00 AM - 09:50 AM</td>
<td>F</td>
<td>1048 - Foreign Languages Building</td>
<td></td>
</tr>
<tr>
<td>68252</td>
<td>Discussion/Recitation</td>
<td>AD5</td>
<td>10:00 AM - 10:50 AM</td>
<td>F</td>
<td>1048 - Foreign Languages Building</td>
<td></td>
</tr>
<tr>
<td>68253</td>
<td>Discussion/Recitation</td>
<td>AD6</td>
<td>11:00 AM - 11:50 AM</td>
<td>F</td>
<td>1048 - Foreign Languages Building</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68247</td>
<td>Lecture</td>
<td>AL1</td>
<td>10:00 AM - 10:50 AM</td>
<td>MW</td>
<td>1024 - Chemistry Annex</td>
<td>Kendall, L</td>
</tr>
</tbody>
</table>


**IS 351  The Design of Usable Information Interfaces**  credit: 3 hours.
Examines issues of Human Computer Interaction and the design of better computer interfaces. Prerequisite: Sophomore standing.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68246</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>12:30 PM - 02:00 PM</td>
<td>TR</td>
<td>-</td>
<td>Ginger, J</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Not intended for students with Freshman class standing. Restricted to Undergrad - Urbana-Champaign.
IS 390  **Special Topics in Information Studies**  credit: 1 TO 3 hours.
Directed and supervised investigation of selected topics in information studies that may include among others computers and culture; information policy; community information systems; production, retrieval and evaluation of scientific or social science knowledge; computer-mediated communication; and computer-supported cooperative work. May be repeated. Prerequisite: Sophomore standing.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68256</td>
<td>Lecture-Discussion</td>
<td>CC</td>
<td>09:30 AM - 10:50 AM</td>
<td>TR</td>
<td>109 - Grad Sch of Lib &amp; Info Science</td>
<td>Duffy, D</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Computers and Cultures
Not intended for students with Freshman class standing. Restricted to Undergrad - Urbana-Champaign.

Open to sophomores, juniors and seniors. ### Explores cultural ideas about computers, including hopes and fears about the effects of computers on our lives. Will analyze images of computers in fiction and movies. The course will also examine hackers, online subcultures, and other computer-related subcultures, and the integration of computers into various cultural practices.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71876</td>
<td>Lecture-Discussion</td>
<td>W1A</td>
<td>11:00 AM - 11:50 AM</td>
<td>MWF</td>
<td>-</td>
<td>Hopping, D</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Web Technologies & Techniques
Not intended for students with Freshman class standing. Restricted to Undergrad - Urbana-Champaign.

This course provides an introduction to the technologies behind the Web. Topics covered include: hypertext, hypermedia, the history of the Web, the role of Web standards and their impact on the development of Web resources. The course introduces principles of Web design and usability. Students will gain an understanding how the Web works and how to design, construct, evaluate, and maintain Web-based materials. CLASS MEETS in the FAA Arts Annex, 1301 S. Goodwin, Urbana. Open to sophomores, juniors and seniors.

---

IS 403  **Literature and Resources for Children**  credit: 2 TO 4 hours.
Evaluation, selection and use of books and other resources for children (ages 0-14) in public libraries and school media centers; explores standard selection criteria for print and nonprint materials in all formats and develops the ability to evaluate and promote materials according to their various uses (personal and curricular) and according to children's various needs (intellectual, emotional, social and physical). 3 undergraduate hours. 2 or 4 graduate hours. Prerequisite: For undergraduates, junior or senior standing and consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68266</td>
<td>Lecture-Discussion</td>
<td>AG</td>
<td>04:00 PM - 06:50 PM</td>
<td>W</td>
<td>-</td>
<td>Lucht, K</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
Restricted to Library & Information Science major(s). Restricted to Graduate - Urbana-Champaign.
All other students need department approval, email ischool-advising@illinois.edu.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68794</td>
<td>Lecture-Discussion</td>
<td>AU</td>
<td>04:00 PM - 06:50 PM</td>
<td>W</td>
<td>-</td>
<td>Lucht, K</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Restricted to Undergrad - Urbana-Champaign.
IS 404  **Literature and Resources for Young Adults**  credit: 2 TO 4 hours.
Evaluation, selection and use of books and other resources for young adults (ages 12-18) in public libraries and school media centers; explores standard selection criteria for print and nonprint materials in all formats and develops the ability to evaluate and promote materials according to their various uses (personal and curricular) and according to young adults' various needs (intellectual, emotional, social and physical). 3 undergraduate hours. 2 or 4 graduate hours. Prerequisite: For undergraduates, junior or senior standing and consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71807</td>
<td>Lecture-Discussion</td>
<td>AG</td>
<td>04:00 PM - 06:50 PM</td>
<td>W</td>
<td>-</td>
<td>Lucht, K</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
Restricted to Library & Information Science major(s). Restricted to Graduate - Urbana-Champaign. All other students need department approval, email ischool-advising@illinois.edu.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71808</td>
<td>Lecture-Discussion</td>
<td>AU</td>
<td>04:00 PM - 06:50 PM</td>
<td>W</td>
<td>-</td>
<td>Lucht, K</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
All other students need department approval, email ischool-advising@illinois.edu.

IS 418  **Community Engagement**  credit: 3 OR 4 hours.
Community engagement refers to the multiple ways that information professionals in libraries and other settings learn about, collaborate with, and provide service and outreach to community members. Provides an introduction to, and overview of, community engagement theory and practice. A significant portion of coursework will take the form of service learning or community-based research via approved projects that match students' interests. 3 undergraduate hours. 4 graduate hours.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70369</td>
<td>Lecture-Discussion</td>
<td>AG</td>
<td>09:00 AM - 11:50 AM</td>
<td>W</td>
<td>109 - Grad Sch of Lib &amp; Info Science</td>
<td>Wolske, M</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Restricted to Graduate - Urbana-Champaign. Meets with IS 418 AU.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70370</td>
<td>Lecture-Discussion</td>
<td>AU</td>
<td>09:00 AM - 11:50 AM</td>
<td>W</td>
<td>109 - Grad Sch of Lib &amp; Info Science</td>
<td>Wolske, M</td>
</tr>
</tbody>
</table>

Credit Hours: 3 hours
Restricted to Undergrad - Urbana-Champaign. Meets with IS 418 AG.

IS 446  **Fantasy Literature and Media for Youth**  credit: 2 TO 4 hours.
The selection and evaluation of historical and contemporary fantasy literature and media for library collections aimed at children and young adults. Texts examined will include books, movies, and games. 3 undergraduate hours. 2 or 4 graduate hours.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
</table>

All other students need department approval, email ischool-advising@illinois.edu.
<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68267</td>
<td>Lecture</td>
<td>A</td>
<td>09:00 AM - 11:50 AM</td>
<td>T</td>
<td>-</td>
<td>Wolske, M</td>
</tr>
</tbody>
</table>

IS Class Materials $130.00 Flat Fee.
Not intended for students with Freshman or Sophomore class standing.
There is a $130 class materials fee for the Raspberry pi starter kit that will be assessed to the student's tuition & fees bill.

**IS 451 Introduction to Network Information Systems**  credit: 4 hours.
This course provides a deep hands-on sociotechnical dive into technology including electronics, software, and networks culminating in a holistic understanding of networked information systems. The course also explores the methodological landscape of networked information systems including theoretical assumptions, research methods, and research techniques. Throughout, students will be introduced to, and make active use of, skillsets, frameworks, and standards employed by a wide range of information professionals in selecting, co-designing, appropriating, and innovating-in-use networked information systems. Additional fees may apply. See Class Schedule. 4 undergraduate hours. 4 graduate hours.

**IS 452 Foundations of Information Processing**  credit: 2 OR 4 hours.
Covers common data, document processing, and programming constructs and concepts. Focuses on problem solving and abstraction with a programming language. By the end of the course students will be able to design, develop and test a moderately complex computer program to manage full text, bibliographic records or multimedia. The course prepares students for working with applications in data analytics, data science, digital libraries, text mining and knowledge management. No prior programming background is assumed. 4 undergraduate hours. 2 or 4 graduate hours.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68257</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>01:00 PM - 03:50 PM</td>
<td>T</td>
<td>-</td>
<td>Wickes, E</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
MUST CHOOSE 2 or 4 Credit Hours. All other students need department approval. Email ischool-advising@illinois.edu. Laptop Required.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68947</td>
<td>Online</td>
<td>AO</td>
<td>05:30 PM - 07:30 PM</td>
<td>M</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
MUST CHOOSE 2 or 4 Credit Hours. All other students need department approval. Email ischool-advising@illinois.edu.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71858</td>
<td>Online</td>
<td>AO2</td>
<td>06:00 PM - 08:00 PM</td>
<td>W</td>
<td>-</td>
<td>Naiman, J</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
MUST CHOOSE 2 or 4 Credit Hours. All other students need department approval. Email ischool-advising@illinois.edu.

**IS 455 Database Design and Prototyping**  credit: 4 hours.
The course provides students with both theoretical and practical training in good database design. By the end of the course students will create a conceptual data model using entity-relationship diagrams, understand the importance of referential integrity and how to enforce data integrity constraints when creating a database. Students will be proficient in writing basic queries in the structured query language (SQL) and have a general understanding of relational database theory including normalization. 4 undergraduate hours. 4 graduate hours. Prerequisite: Junior Standing required.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71895</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>01:00 PM - 03:50 PM</td>
<td>F</td>
<td>-</td>
<td>Blake, C</td>
</tr>
</tbody>
</table>

Not intended for students with Freshman or Sophomore class standing.
Formerly (L)IS 490 DB - Introduction to Databases

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71897</td>
<td>Online</td>
<td>AO</td>
<td>06:30 PM - 09:00 PM</td>
<td>T</td>
<td>-</td>
<td>Trainor, K</td>
</tr>
</tbody>
</table>

Not intended for students with Freshman or Sophomore class standing.
Formerly (L)IS 490 DBO - Introduction to Databases

**IS 457  Introduction to Data Science  credit: 4 hours.**

This course introduces students to data science approaches that have emerged from recent advances in programming and computing technology. They will learn to collect and use data from a variety of sources, including the web, in a modern statistical inference and visualization paradigm. The course will be based in the programming language R, but will also use HTML, regular expressions, basic unix tools, XML, and SQL. Supervised and unsupervised statistical learning techniques made possible by recent advances in computing power will also be covered. 4 undergraduate hours. 4 graduate hours.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70320</td>
<td>Lecture-Discussion</td>
<td>AG</td>
<td>01:00 PM - 03:50 PM</td>
<td>M</td>
<td>126 - Grad Sch of Lib &amp; Info Science</td>
<td>Stodden, V</td>
</tr>
</tbody>
</table>

Restricted to Graduate - Urbana-Champaign.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70900</td>
<td>Online</td>
<td>AO</td>
<td>05:00 PM - 07:00 PM</td>
<td>W</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70321</td>
<td>Lecture-Discussion</td>
<td>AU</td>
<td>01:00 PM - 03:50 PM</td>
<td>M</td>
<td>126 - Grad Sch of Lib &amp; Info Science</td>
<td>Stodden, V</td>
</tr>
</tbody>
</table>

Not intended for students with Freshman or Sophomore class standing. Restricted to Undergrad - Urbana-Champaign.

**IS 458  Instructional Strategies and Techniques for Information Professionals  credit: 2 TO 4 hours.**

Provides an introduction to learning theories and instructional methods used in a variety of information settings, including libraries, archives, museums, online, and educational environments. Includes an overview of theoretical and applied research and discusses relevant issues and concepts. Students will have an opportunity to design and present an instructional program. 3 undergraduate hours. 2 or 4 graduate hours.
### IS 490  **Advanced Topics in Information Studies**  credit: 2 TO 4 hours.

Directed and supervised investigation of selected topics in information studies that may include among others the social, political, and historical contexts of information creation and dissemination; computers and culture; information policy; community information systems; production, retrieval and evaluation of knowledge; computer-mediated communication. Additional fees may apply. See Class Schedule. 2 to 4 undergraduate hours. 2 to 4 graduate hours. May be repeated. Prerequisite: For undergraduates, junior standing and IS 202, or consent of instructor.

Class materials fee or field trip fee may be required.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71994</td>
<td>Lecture-Discussion</td>
<td>GHG</td>
<td>01:00 PM - 03:50 PM</td>
<td>R</td>
<td>-</td>
<td>Brooks, I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71995</td>
<td>Lecture-Discussion</td>
<td>GHU</td>
<td>01:00 PM - 03:50 PM</td>
<td>R</td>
<td>-</td>
<td>Brooks, I</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71810</td>
<td>Lecture</td>
<td>SMG</td>
<td>09:00 AM - 11:50 AM</td>
<td>F</td>
<td>-</td>
<td>Duffy, D</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71811</td>
<td>Lecture</td>
<td>SMU</td>
<td>09:00 AM - 11:50 AM</td>
<td>F</td>
<td>-</td>
<td>Duffy, D</td>
</tr>
</tbody>
</table>

### Social Media and Global Change

Restricted to Library & Information Science major(s). Restricted to Graduate - Urbana-Champaign. MUST CHOOSE 2 or 4 Credit Hours. All other students need department approval. Email ischool-advising@illinois.edu. 

This course covers the impact of global and national computer networks on politics, culture, and social relations during a time of upheaval and revolutionary change. Topics may include the new social media, the politics and culture of the internet, hacktivism, cyber warfare, and mobile telephony and their role in the formation, dissemination, manipulation, and suppression of public opinion in Russia/Eurasia, the China/Pacific region, Central/South America, as well as Africa, Iran, and the Middle East.

Credit Hours: 3 hours
Social Media and Global Change
Not intended for students with Freshman or Sophomore class standing. Restricted to Undergrad - Urbana-Champaign. This course covers the impact of global and national computer networks on politics, culture, and social relations during a time of upheaval and revolutionary change. Topics may include the new social media, the politics and culture of the internet, hacktivism, cyber warfare, and mobile telephony and their role in the formation, dissemination, manipulation, and suppression of public opinion in Russia/Eurasia, the China/Pacific region, Central/South America, as well as Africa, Iran, and the Middle East.

68950 Online TEO 06:30 PM - 08:30 PM M - McLellan, A

Intro to Technology in LIS
Restricted to students in the Information Sciences department. Restricted to Graduate - Urbana-Champaign. MUST CHOOSE 2 or 4 Credit Hours. All other students need department approval. Email ischool-advising@illinois.edu. ### This is an introductory course in the fundamentals of technology in LIS. Following an overview of information system concepts, terminology and usage in organizations, there will be discussions covering a wide variety of topics including hardware and software, systems development (traditional and modern methods), programming languages, databases and the internet. Special attention will be paid to the knowledge and skills needed to succeed at GSLIS (servers, file access and management, office software, markup languages, website design and development, etc.) and LIS professional settings. Application of concepts is key.

68957 Online YSO 06:00 PM - 08:00 PM W - Magee, R

Youth Svcs Comm Engagement
Restricted to students in the Information Sciences department. Restricted to Graduate - Urbana-Champaign. MUST CHOOSE 2 or 4 Credit Hours. All other students need department approval. Email ischool-advising@illinois.edu. ### This service-learning course will examine youth services by exploring how young people's information and educational needs are met by community institutions and organizations. We will draw upon youth services librarianship and youth informatics concepts to explore youth informatics in after school programs, community center programs, and other institutions that serve young people. A significant portion of coursework will take the form of service learning or community-based research via approved projects that match students' interests. 2 Credit students will be enrolled for the last eight weeks of the term. 4 Credit students will be enrolled for the full term, and during the first half of the course will examine the implementation of computing and coding programs in libraries and other youth services community informatics settings.

IS 501 Information Organization and Access credit: 4 hours.
Emphasizes information organization and access in settings and systems of different kinds. Traces the information transfer process from the generation of knowledge through its storage and use in both print and non-print formats. Consideration will be given to the creation of information systems: the principles and practice of selection and preservation, methods of organizing information for retrieval and display, the operation of organizations that provide information services, and the information service needs of various user communities. 4 graduate hours. No professional credit. Required M.S. in library and information science degree core course.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68849</td>
<td>Lecture-Discussion</td>
<td>A1</td>
<td>09:00 AM - 11:50 AM</td>
<td>R</td>
<td>-</td>
<td>Knox, E</td>
</tr>
</tbody>
</table>

Restricted to Library & Information Science major(s). Restricted to MS:Library & Infor Sci -UIUC.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68958</td>
<td>Online</td>
<td>AO</td>
<td>06:00 PM - 08:00 PM</td>
<td>W</td>
<td>-</td>
<td>Downie, J</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department. Restricted to MS:Lib & Inf Sci Online-UIUC. All other students need department approval. Email ischool-advising@illinois.edu

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68959</td>
<td>Online</td>
<td>AO2</td>
<td>05:00 PM - 07:00 PM</td>
<td>M</td>
<td>-</td>
<td>LaBarre, K</td>
</tr>
</tbody>
</table>

Restricted to MS:Lib & Inf Sci Online-UIUC.
IS 502  Libraries, Information and Society  credit: 2 OR 4 hours.
Explores major issues in the library and information science professions as they involve their communities of users and sponsors. Analyzes specific situations that reflect the professional agenda of these fields, including intellectual freedom, community service, professional ethics, social responsibilities, intellectual property, literacy, historical and international models, the socio-cultural role of libraries and information agencies and professionalism in general, focusing in particular on the interrelationships among these issues. 2 or 4 graduate hours. No professional credit. Prerequisite: Required M.S. in library and information science degree core course.

**IS 503  Use and Users of Information  credit: 4 hours.**
Explores information needs and uses at a general level, addressing formal and informal information channels, barriers to information, issues of value, and impacts of technology. Examines information seeking practices of particular communities and within various environments, introducing recent approaches to user-centered system design and digital library development. Provides an overview of methods that can be used to study information needs, information seeking behavior, and related phenomena. 4 graduate hours. No professional credit. Prerequisite: IS 501.

**IS 504  Reference and Information Services  credit: 4 hours.**
Explores reference and information services in a variety of settings, introduces widely used print and online sources, and develops question negotiation skills and search strategies. 4 graduate hours. No professional credit.
<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68269</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>09:00 AM - 11:50 AM</td>
<td>M</td>
<td>-</td>
<td>Avery, S</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Woodard, B</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours  
Restricted to Library & Information Science major(s).  
All other students need department approval. Email ischool-advising@illinois.edu.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68970</td>
<td>Online</td>
<td>AO</td>
<td>06:30 PM - 08:30 PM</td>
<td>R</td>
<td>-</td>
<td>Holba Puacz, J</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours  
Restricted to students in the Information Sciences department.  
All other students need department approval. Email ischool-advising@illinois.edu.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68971</td>
<td>Online</td>
<td>AO2</td>
<td>07:00 PM - 09:00 PM</td>
<td>T</td>
<td>-</td>
<td>Holba Puacz, J</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours  
Restricted to students in the Information Sciences department.  
All other students need department approval. Email ischool-advising@illinois.edu.

**IS 505  Administration & Management of Libraries and Information Centers**  credit: 4 hours.  
Designed to explore the principles that govern how organizations and institutions work, this course provides a foundation for and introduction to the theories, practices and procedures involved in the management and administration of libraries and information centers. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69081</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>04:00 PM - 06:50 PM</td>
<td>M</td>
<td>-</td>
<td>Bonn, M</td>
</tr>
</tbody>
</table>

Restricted to Library & Information Science major(s).

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68972</td>
<td>Online</td>
<td>AO</td>
<td>06:00 PM - 08:00 PM</td>
<td>R</td>
<td>-</td>
<td>Wong, M</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.

**IS 506  Youth Services Librarianship**  credit: 4 hours.  
Theory and techniques in planning, implementing and evaluating library programs/services for youth (age 0-18) in public and school libraries/media centers; the knowledge base, skills, and competencies needed by the library media professional in the development of all aspects of young people's reading/viewing/listening and information literacy skills. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68271</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>09:00 AM - 11:50 AM</td>
<td>M</td>
<td>46 - Grad Sch of Lib &amp; Info Science</td>
<td>Koh, K</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours  
Restricted to Library & Information Science major(s).

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68973</td>
<td>Online</td>
<td>AO</td>
<td>06:00 PM - 08:00 PM</td>
<td>T</td>
<td>-</td>
<td>Koh, K</td>
</tr>
</tbody>
</table>
IS 507  **Introduction to Bibliographic Metadata**  credit: 4 hours.
Introduction to basic principles and concepts of descriptive and subject cataloging in the context of information service needs for various user communities. Explores principles, structures, standards, technologies and practices relating to organizing and creating access to print and non-print media. Includes coverage of subject analysis and descriptive practices. Introduces controlled vocabularies. 4 graduate hours. No professional credit. Prerequisite: IS 501, or concurrent enrollment in IS 501 and IS 507.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68974</td>
<td>Online</td>
<td>AO</td>
<td>06:00 PM - 08:00 PM</td>
<td>T</td>
<td></td>
<td>Bothmann, R</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Restricted to students in the Information Sciences department.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68976</td>
<td>Online</td>
<td>AO2</td>
<td>07:00 PM - 09:00 PM</td>
<td>W</td>
<td></td>
<td>Shoemaker, E</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Restricted to students in the Information Sciences department.

IS 508  **Collection Development**  credit: 4 hours.
Examines issues affecting the development and management of collections for academic, public, special, and school libraries: collection development policies, collection assessment, the marketplace, publishing, legal issues, and budget allocation; document delivery; collaboration and cooperation. 4 graduate hours. No professional credit. Prerequisite: IS 501, or concurrent enrollment in IS 501 and IS 508.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68975</td>
<td>Online</td>
<td>AO</td>
<td>06:00 PM - 08:00 PM</td>
<td>W</td>
<td></td>
<td>Barnhart, A</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Restricted to students in the Information Sciences department.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68977</td>
<td>Online</td>
<td>AO2</td>
<td>01:00 PM - 03:00 PM</td>
<td>M</td>
<td></td>
<td>Holba Puacz, J</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Restricted to students in the Information Sciences department.

IS 514  **History of Children's Lit**  credit: 2 OR 4 hours.
Interpretation of children's literature from the earliest times, including the impact of changing social and cultural patterns on books for children; attention to early printers and publishers of children's books and to magazines for children. 2 or 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68979</td>
<td>Online</td>
<td>AO</td>
<td>04:00 PM - 06:30 PM</td>
<td>W</td>
<td></td>
<td>Hoiem, E</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
IS 515  Media Literacy for Youth  credit: 2 OR 4 hours.
Provides students with theoretical knowledge and practical methods useful to librarians and other professionals working with young people and media. Building on traditional understandings of literacy, media literacy explores the consumption and production of diverse types of texts including print, images, games, and music. Topics for this course may include the role of race in media, media literacy as a catalyst for social change, and intellectual property issues related to media education. 2 or 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71828</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>01:00 PM - 03:50 PM</td>
<td>M</td>
<td>-</td>
<td>Magee, R</td>
</tr>
</tbody>
</table>

Media Literacy for Youth
Restricted to students in the Information Sciences department.
MUST CHOOSE 2 or 4 Credit Hours. All other students need department approval. Email ischool-advising@illinois.edu.

IS 516  School Library Media Center  credit: 2 OR 4 hours.
School Library Information Specialists serve children and young adults (ages 5-18) in K-12 school library media centers. Students will acquire specific knowledge, skills and competencies needed to design, develop, integrate and assess curriculum and instruction with an emphasis on the information needs of K-12 students. Readings and projects provide students with opportunities to apply the practical knowledge and skills they have learned about building reading literacy, teaching information literacy skills, collaborating with teachers and integrating resources into teaching and learning. 2 or 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71830</td>
<td>Online</td>
<td>AO</td>
<td>07:00 PM - 09:00 PM</td>
<td>R</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
MUST CHOOSE 2 or 4 Credit Hours. All other students need department approval. Email ischool-advising@illinois.edu.

IS 518  Community Informatics  credit: 4 hours.
Survey of an emerging field that studies how local, historical communities use information and communication technologies or otherwise access, create, organize, and share information. Covers key principles for working in libraries or the wider non-profit/public sectors as individuals, organizations, and communities harness new technologies and media. Prepares both professionals and researchers, whatever their technology background. Especially useful for those interested in public or community libraries, youth services, university public engagement, social work, education, and anyone interested in working with or studying underserved communities. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68404</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>09:00 AM - 11:50 AM</td>
<td>W</td>
<td>-</td>
<td>Williams, K</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
All other students need department approval. Email ischool-advising@illinois.edu

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71831</td>
<td>Online</td>
<td>AO</td>
<td>04:30 PM - 06:30 PM</td>
<td>M</td>
<td>-</td>
<td>Williams, K</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
IS 530  Information Needs of Particular Communities  credit: 2 OR 4 hours.
Special topics sections for in-depth study of the characteristics and information needs of specialist users of libraries; goals and objectives, policies, and services; reference and bibliographical aids; and effective services that satisfy these special needs. 2 or 4 graduate hours. No professional credit. May be repeated. Prerequisite: IS 504 or consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71934</td>
<td>Online</td>
<td>HSO</td>
<td>07:00 PM - 09:00 PM</td>
<td>R</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Health Sci Info Svcs & Res
Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
Provides a general introduction to information services and sources which serve the health-related information needs of health care professionals and the lay public. Provides exposure to the tools and services most often encountered in delivery of health-related information, issues and trends in health science library practice, ethical issues in provision of health-related information, and specialized programs and services for all health information consumers.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71833</td>
<td>Online</td>
<td>MAO</td>
<td>05:30 PM - 07:30 PM</td>
<td>W</td>
<td>-</td>
<td>Dougan, K</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
Music Libranship & Bibliography
Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
Music Librarianship is a unique field, requiring a firm grasp of principles of music and librarianship. This course will cover a number of aspects of music librarianship, including music collections, information literacy, and music technology. Students will explore the current literature on music librarianship and analyze the theoretical aspects of the field through discussions and written assignments. Students will also delve into the practice of music librarianship by meeting music librarians and completing a project for a music library.

IS 532  Theory & Practice of Data Cleaning  credit: 4 hours.
Data cleaning (also: cleansing) is the process of assessing and improving data quality for later analysis and use, and is a crucial part of data curation and analysis. This course identifies data quality issues throughout the data lifecycle, and reviews specific techniques and approaches for checking and improving data quality. Techniques are drawn primarily from the database community, using schema-level and instance-level information, and from different scientific communities, which are developing practical tools for data pre-processing and cleaning. Same as CS 513. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70340</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>05:00 PM - 07:00 PM</td>
<td>R</td>
<td>-</td>
<td>Ludaescher, B</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
This is a hybrid course that meets with IS 532 AO and CS 513.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70341</td>
<td>Online</td>
<td>AO</td>
<td>05:00 PM - 07:00 PM</td>
<td>R</td>
<td>-</td>
<td>Ludaescher, B</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
This is a hybrid course that meets with IS 532 A and CS 513.

**IS 538  Competitive Intelligence & Knowledge Management  credit: 4 hours.**
This course examines two of the most popular practices of business research: Competitive Intelligence (CI) & Knowledge Management (KM). This course provides theoretical foundations and conceptual framework of CI & KM, as students acquire skills in translating research data into actionable intelligence and managing organizations’ intellectual capital systematically. This course will introduce concepts of strategic analyses of businesses, and students will also explore key KM technologies widely used in the industry. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70328</td>
<td>Online</td>
<td>AO</td>
<td>03:30 PM - 05:30 PM</td>
<td>W</td>
<td>-</td>
<td>Hart, J</td>
</tr>
</tbody>
</table>

**IS 539  Information Consulting  credit: 4 hours.**
This course is designed to provide fundamental knowledge in providing research services and also introduce the latest trends and innovative approaches in research services. Information professionals are increasingly being challenged to provide not just data but insights and recommendations that are critical for strategic decision making. Using methodologies widely adopted by professional firms and researchers, this course will cover basics of research consulting including framing research problems, developing deliverables, and presenting professionally. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71812</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>04:00 PM - 05:50 PM</td>
<td>W</td>
<td>-</td>
<td>Song, Y</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department. Restricted to Graduate - Urbana-Champaign.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71826</td>
<td>Online</td>
<td>AO</td>
<td>06:00 PM - 08:00 PM</td>
<td>R</td>
<td>-</td>
<td>Song, Y</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department. Restricted to Graduate - Urbana-Champaign.

**IS 540  Applied Business Research  credit: 4 hours.**
As an experiential learning class, this course covers advanced techniques of business research with an emphasis on managing real-world client projects. Students will be assigned to teams and work with clients to identify research requirements and construct recommendations. Students will acquire critical skills in creating professional deliverables through client engagements. Students will build professional research portfolios at the conclusion of their projects. 4 graduate hours. No professional credit. May be repeated in separate terms up to 8 hours if topics vary. Prerequisite: Instructor approval required.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70329</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>03:30 PM - 06:20 PM</td>
<td>T</td>
<td>131 - Grad Sch of Lib &amp; Info Science</td>
<td>Song, Y</td>
</tr>
</tbody>
</table>

Instructor Approval Required
Restricted to Graduate - Urbana-Champaign.
Prerequisite: IS 530 BIO (Business Information) or IS 539 (Information Consulting) and instructor’s approval, please email yoosong@illinois.edu.
IS 542  Data, Statistical Models and Information  credit: 4 hours.
An introduction to statistical and probabilistic models as they pertain to quantifying information, assessing information quality, and principled application of information to decision making, with focus on model selection and gauging model quality. The course reviews relevant results from probability theory, parametric and non-parametric predictive models, as well as extensions of these models for unsupervised learning. Applications of statistical and probabilistic models to tasks in information management (e.g. prediction, ranking, and data reduction) are emphasized. 4 graduate hours. No professional credit. Prerequisite: Graduate standing.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68856</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>09:30 AM - 12:20 PM</td>
<td>T</td>
<td>126 - Grad Sch of Lib &amp; Info Science</td>
<td>Torvik, V</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
This is a required course for the MSIM degree.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70330</td>
<td>Online</td>
<td>AO</td>
<td>05:30 PM - 07:30 PM</td>
<td>R</td>
<td>-</td>
<td>Naiman, J</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
Restricted to MS: Information Mgt Onl -UIUC.
This is a required course of the MSIM Degree.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68916</td>
<td>Lecture-Discussion</td>
<td>B</td>
<td>01:00 PM - 03:50 PM</td>
<td>T</td>
<td>-</td>
<td>Underwood, W</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
This is a required course of the MSIM Degree.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70384</td>
<td>Lecture-Discussion</td>
<td>C</td>
<td>09:00 AM - 11:50 AM</td>
<td>T</td>
<td>-</td>
<td>Bosch, N</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
This is a required course of the MSIM Degree.

IS 543  Sociotechnical Information Systems  credit: 4 hours.
The character, success, and costs/benefits of information technologies are socio-technical matters. Because of this, best practice for IT design and integration relies on participants' ability to understand and create for the totality of those settings, including social and technical dimensions. This course provides students with analytic tools for examining socio-technical settings and experience in applying that knowledge in IT modeling, design and management. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68425</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>09:00 AM - 11:50 AM</td>
<td>T</td>
<td>-</td>
<td>Darch, P</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign. Restricted to MS:Information Management-UIUC.
This is a required course for the MSIM degree.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68982</td>
<td>Online</td>
<td>AO</td>
<td>05:00 PM - 07:00 PM</td>
<td>M</td>
<td>-</td>
<td>McDonough, J</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Restricted to students in the Information Sciences department.
Restricted to MS: Information Mgt Onl -UIUC.
IS 545  **Social Justice in the Information Professions**  credit: 2 hours.

This course is intended to provide a historic and contemporary overview of social justice and advocacy work in librarianship. The course will be primarily focused on activities in the United States, though international movements and perspectives will be addressed. Topics include: desegregation of libraries and professional associations; recruitment and retention of library workers from traditionally underrepresented populations; library outreach; intellectual freedom; and emerging critical theories and issues in the field. 2 graduate hours. No professional credit. Prerequisite: Graduate student.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71849</td>
<td>Online</td>
<td>AO</td>
<td>04:00 PM - 06:00 PM</td>
<td>T</td>
<td>-</td>
<td>LaBarre, K</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.

IS 546  **Intellectual Freedom and Censorship**  credit: 2 hours.

Examines intellectual freedom issues throughout the United States and the world. Approaches intellectual freedom as an ethical issue based in interpretations of the First Amendment and the United Nations Declaration of Human Rights. The course encourages information professionals to view commitment to intellectual freedom as a core professional value and gives students the opportunity to develop skills and strategies needed to navigate censorship controversies in the workplace. 2 graduate hours. No professional credit. Prerequisite: IS 502 or consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68983</td>
<td>Online</td>
<td>AO</td>
<td>04:00 PM - 06:30 PM</td>
<td>T</td>
<td>-</td>
<td>Knox, E</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
Restricted to students in the Information Sciences department.
All other students need department approval. Email ischool-advising@illinois.edu.

IS 555  **Usability Engineering**  credit: 4 hours.

The course provides an introduction to: issues in Human Computer Interaction; analysis of interfaces and their use; the interface design process as an engineering activity; designing usable interfaces under constraints; and the rapid prototyping and evaluation cycle. The course covers interface design in multiple contexts including websites, web-based applications, smartphone apps, regular computer apps and new contexts of interacting with computers. Elective course for the CAS in Digital Libraries concentration. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69529</td>
<td>Online</td>
<td>AO</td>
<td>06:30 PM - 08:30 PM</td>
<td>W</td>
<td>-</td>
<td>Bradley, R</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.

IS 561  **Information Modeling**  credit: 4 hours.

An introduction to the foundations of information modeling methods used in current digital library applications. The specific methods considered include relational database design, conceptual modeling, markup systems, and ontologies. The basic concepts underlying these methods are, respectively, relations, entities, grammars, and logic. Implementations include relational database design, ER/EER/UML diagrams, XML markup languages, and RDF/OWL semantic web languages. First order logic is emphasized throughout as the
foundational framework for information modeling in general, and for contemporary web-based information management and delivery systems (including semantic web technologies) in particular. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68783</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>09:00 AM - 11:20 AM</td>
<td>F</td>
<td>32 - Psychology Building</td>
<td>Wickett, K</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
This is a required course for the MSIM degree.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68851</td>
<td>Lecture-Discussion</td>
<td>B</td>
<td>01:00 PM - 03:20 PM</td>
<td>F</td>
<td>209 - Huff Hall</td>
<td>Schneider, J</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
This is a required course for the MSIM degree.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70386</td>
<td>Lecture-Discussion</td>
<td>C</td>
<td>05:00 PM - 07:20 PM</td>
<td>F</td>
<td>209 - Huff Hall</td>
<td>Schneider, J</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
This is a required course for the MSIM degree.

**IS 562  Metadata in Theory & Practice**  credit: 4 hours.

Combines theoretical examination of the design of metadata schema with their practical application in a variety of settings. Hands-on experience in the creation of descriptive, administrative, and structural metadata, along with their application in systems such as OAI harvesting, OpenURL resolution systems, metasearch systems and digital repositories, will help students develop a thorough understanding of current metadata standards as well as such issues as crosswalking, metadata schema, metadata's use in information retrieval and data management applications, and the role of standards bodies in metadata schema development. 4 graduate hours. No professional credit. Prerequisite: IS 501 or consent of instructor.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69025</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>ARRANGED -</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
All other students need department approval. Email ischool-advising@illinois.edu.

**IS 567  Academic Librarianship**  credit: 4 hours.

Introduces the higher education environment in which academic librarians and other information professionals operate in order to prepare students for leadership roles both within academic libraries and in their parent institutions. This course explores academic librarianship through a variety of lenses including: history and organization of higher education; accreditation; characteristics of students; roles of faculty and other campus professionals; and current issues and challenges. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68917</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>09:00 AM - 11:50 AM</td>
<td>T</td>
<td>-</td>
<td>Bonn, M</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Restricted to students in the Information Sciences department.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68986</td>
<td>Online</td>
<td>AO</td>
<td>01:30 PM - 03:30 PM</td>
<td>W</td>
<td>-</td>
<td>Wong, M</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
IS 569  Financial Management  credit: 4 hours.

Designed to familiarize the student with the basic principles of library financial administration, including budgeting and planning within the mission and goals of the organization. Provides an orientation to the variety of financial management techniques appropriate for libraries and information centers, with an emphasis on sources for obtaining financial support, controlling expenditures, creating and controlling budgets, financial decision making and exploring specific financial and budgetary problems for the major operational areas of libraries - public services, technical services, information technology and facilities. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68987</td>
<td>Online</td>
<td>AO</td>
<td>07:00 PM - 09:00 PM</td>
<td>T</td>
<td>-</td>
<td>Mead-Harvey, B</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Restricted to students in the Information Sciences department.
All other students need department approval. Email ischool-advising@illinois.edu.

IS 571  History of the Book  credit: 4 hours.

Explores the role of the book in the production and transmission of knowledge through time. Major themes include the design, materiality, and performance of reading and writing technologies. Particular attention will be paid to the graphic representation and visualization of information across media. Students will examine different approaches to the study of books and documents, including those of palaeography, diplomatics, bibliography, art history, musicology, textual criticism, digital humanities, and new media studies. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70113</td>
<td>Lecture-Discussion</td>
<td>HB</td>
<td>10:00 AM - 12:50 PM</td>
<td>W</td>
<td>ARR - Library</td>
<td>Mak, B</td>
</tr>
</tbody>
</table>

Restricted to Graduate - Urbana-Champaign.

IS 581  Administration and Use of Archival Materials  credit: 4 hours.

Administration of archives and manuscript collections in various types of institutions. Theoretical principles and archival practices of appraisal, acquisition, accessioning, arrangement, description, preservation, and reference services. Topics will include: records management programs, collecting archives programs/special collections, legal and ethical issues, public programming and advocacy, and the impact of new information technologies for preservation and access. Lectures, discussion, internet demonstration, and field trips to the Special Collections Department and University Archives. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68989</td>
<td>Online</td>
<td>AO</td>
<td>07:00 PM - 09:00 PM</td>
<td>M</td>
<td>-</td>
<td>Salrin, M</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
All other students need department approval. Email ischool-advising@illinois.edu.

IS 582  Preserving Info Resources  credit: 4 hours.

Covers the broad range of library preservation and conservation for book and nonbook materials relating these efforts to the total library environment; emphasizes how the preservation of collections affects collection management and development, technical services, access to materials and service to users. 4 graduate hours. No professional credit.
IS 585  **International Librarianship**  credit: 4 hours.
Focuses on international librarianship (how librarians communicate on international issues) and how that differs from comparative librarianship (the comparative study of library services in specific contexts). Examines how concepts such as "one-world" and "free flow of information" are valid in the international information arena; the importance of internationalizing library education; the role of international information agencies and the need for formulating information policies. Local and regional issues relating to library and information science are studied in the context of global issues. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68412</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>01:00 PM - 03:50 PM</td>
<td>M</td>
<td>-</td>
<td>Weech, T</td>
</tr>
</tbody>
</table>

Restricted to Library & Information Science major(s).

IS 586  **Digital Preservation**  credit: 4 hours.
Examines current problems with and approaches to digital preservation that are fundamental to the long-term accessibility of digital materials. Examines the range of current research problems, along with emerging methods and tools, and assesses a variety of organizational scenarios to plan and implement a preservation plan. Topics include basic information theory, preservation of complex digital objects; standards and specifications; sustainability and risk assessment; authenticity, integrity, quality control, and certification; and management of preservation activities. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68990</td>
<td>Online</td>
<td>AO</td>
<td>06:00 PM - 08:00 PM</td>
<td>R</td>
<td>-</td>
<td>McDonough, J</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
All other students need department approval. Email ischool-advising@illinois.edu.

IS 588  **Research Design in Library and Information Science**  credit: 4 hours.
Provides an introduction to the design of LIS research, beginning with an in-depth consideration of the philosophical and logical underpinnings of research. A brief survey of different methods used in LIS research is followed by an exploration of research design issues through comparative hands-on exercises. Throughout the course, the emphasis will be on research design choices, especially the connections between research questions and research methods. Required LIS Ph.D. course. 4 graduate hours. No professional credit.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69487</td>
<td>Lecture-Discussion</td>
<td>A</td>
<td>01:00 PM - 03:50 PM</td>
<td>T</td>
<td>242 - Grad Sch of Lib &amp; Info Science</td>
<td>Kendall, L</td>
</tr>
</tbody>
</table>

Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
All other students need department approval. Email ischool-advising@illinois.edu.
Open to all PhD students across campus.

IS 590  **Advanced Problems in Information Sciences**  credit: 1 TO 4 hours.
Variety of newly developed and special topics courses on different aspects of the information sciences intended to augment the existing curriculum, offered as sections of IS 590. Additional fees may apply. See Class Schedule. 1 to 4 graduate hours. No professional credit. May be repeated.

Class materials fee or field trip fee may be required.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68213</td>
<td>Lecture-Discussion</td>
<td>AV</td>
<td>09:00 AM - 11:50 AM</td>
<td>M</td>
<td>-</td>
<td>Jones, J</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
AV Materials Libs & Archives
All other students need department approval. Email ischool-advising@illinois.edu. ### As analog film, video, and audio materials and playback equipment become obsolete, libraries and archives with audiovisual (AV) materials in their collections face great challenges in preserving these materials. AV preservation and collection is costly, time-consuming, and requires specialized knowledge. This course will discuss the ways that librarians and archivists are responding to the challenges of audiovisual handling, preservation and collection. Laptop Required. [Elective course for Graduate Certificate in Special Collections]

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69326</td>
<td>Online</td>
<td>BAO</td>
<td>07:00 PM - 09:00 PM</td>
<td>R</td>
<td>-</td>
<td>Gough, J</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Business Analytics
Restricted to students in the Information Sciences department.
All other students need department approval. Email ischool-advising@illinois.edu. ### A foundational course in practical data analytics for the beginner. Students will be introduced to current data analysis tools and techniques for the querying, transformation, summarization, visualization, and modeling of data. Concurrently, the course will explore the terminology and theory behind data analysis and delve into the soft skills required to become an analytics advocate in the workplace. Tools used will include R, MySQL, and Tableau. No prior experience is assumed.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68991</td>
<td>Online</td>
<td>BBO</td>
<td>07:00 PM - 09:00 PM</td>
<td>M</td>
<td>-</td>
<td>Huot, A</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
Bookbinding: Hist, Princ, Prac
Restricted to students in the Information Sciences department.
All other students need department approval. Email ischool-advising@illinois.edu. ### A hands-on exploration of multiple styles of bookbinding. Students will acquire fundamental technical knowledge by creating a variety of book structures using traditional tools and materials. An appreciation of the history of bindings will be gained through readings and virtual visits to Rare Book and Manuscript Rooms.
IS Class Materials $35.00 Flat Fee.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71783</td>
<td>Online</td>
<td>CCO</td>
<td>06:00 PM - 08:00 PM</td>
<td>W</td>
<td>-</td>
<td>Saiger, J</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Intro to Cloud Computing
Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
### This course covers various aspects of cloud computing. Given the variety of cloud computing services, this course will focus on exposure to as many practical scenarios as possible. Infrastructure-as-a-Service, Platform-as-a-Service, Software-as-a-Service, Public Cloud, Private Cloud, Hybrid Cloud, APIs and data security will all be some of the key concepts covered in this course. At the conclusion of this course, students will have had practical experience in selecting and utilizing a cloud solution.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Type</th>
<th>Instructor</th>
<th>Time</th>
<th>Days</th>
<th>Credit Hours</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>71793</td>
<td>Laboratory-Discussion</td>
<td>Chan, A</td>
<td>07:00 PM - 08:50 PM</td>
<td>W</td>
<td>4</td>
<td>Restricted to students in the Information Sciences department. Restricted to Graduate - Urbana-Champaign. Lab-based seminar and class studying best practices in participatory design, civic data research, and community data application and outreach. The class will engage new methods in blending qualitative and quantitative data collection, assessment and visualization, to explore how diversified data collections can inform civic decision making, public policy, community engagement, and the design of infrastructures for public participation. During the semester, we will engage collaborations with local government, community groups, civic associations, and local civic stakeholders to build skills in collecting, assessing, evaluating and communicating insights drawn from diverse forms of data. Suitable for students pursuing professional and research-oriented careers.</td>
</tr>
<tr>
<td>71968</td>
<td>Lecture-Discussion</td>
<td>Darch, P</td>
<td>09:00 AM - 11:50 AM</td>
<td>M</td>
<td>4</td>
<td>Restricted to students in the Information Sciences department. Restricted to Graduate - Urbana-Champaign. The course will cover data ethics and data governance in a range of contemporary situations, including libraries, corporate settings, non-profits, governments and policy making, algorithms and AI, academic research, and healthcare. Students will be introduced to policies and best practices for decision-making when faced with ethical dilemmas involving data. The course will also involve critical discussion of a range of underlying ethical theories and principles. The course is suitable for anyone who plans to work in a professional setting that will involve generating, processing, and/or using data. It is also suitable for those seeking a grounding for future study and research of data and information ethics.</td>
</tr>
<tr>
<td>71795</td>
<td>Lecture-Discussion</td>
<td>Underwood, W</td>
<td>06:00 PM - 08:00 PM</td>
<td>W</td>
<td>4</td>
<td>Restricted to students in the Information Sciences department. Restricted to Graduate - Urbana-Champaign. Will look at some of the history of digital humanities, examine some case studies of digital tools and methods applied to humanities material in the context of research, and consider the implications of such projects for libraries, both in terms of providing support to their creators and in terms of collecting the results. This course considers fundamental concepts and common technologies to understand how they enable and constrain digital scholarship in the humanities, and to explore the abundant opportunities and challenges that digital projects pose for libraries. Through lectures, discussion, and hands-on use of digital tools and humanities data, students will gain familiarity with the shape and prominent features of the extensive landscape of digital humanities research, along with some of the basic skills required to navigate it.</td>
</tr>
<tr>
<td>71796</td>
<td>Online</td>
<td>Underwood, W</td>
<td>06:00 PM - 08:00 PM</td>
<td>W</td>
<td>4</td>
<td>Restricted to students in the Information Sciences department. Restricted to Graduate - Urbana-Champaign. Will look at some of the history of digital humanities, examine some case studies of digital tools and methods applied to humanities material in the context of research, and consider the implications of such projects for libraries, both in terms of providing support to their creators and in terms of collecting the results. This course considers fundamental concepts and common technologies to understand how they enable and constrain digital scholarship in the humanities, and to explore the abundant opportunities and challenges that digital projects pose for libraries. Through lectures, discussion, and hands-on use of digital tools and humanities data, students will gain familiarity with the shape and prominent features of the extensive landscape of digital humanities research, along with some of the basic skills required to navigate it.</td>
</tr>
<tr>
<td>69174</td>
<td>Lecture-Discussion</td>
<td>McDowell, K Turk, M</td>
<td>01:00 PM - 03:50 PM</td>
<td>F</td>
<td></td>
<td>Restricted to students in the Information Sciences department. Will look at some of the history of digital humanities, examine some case studies of digital tools and methods applied to humanities material in the context of research, and consider the implications of such projects for libraries, both in terms of providing support to their creators and in terms of collecting the results. This course considers fundamental concepts and common technologies to understand how they enable and constrain digital scholarship in the humanities, and to explore the abundant opportunities and challenges that digital projects pose for libraries. Through lectures, discussion, and hands-on use of digital tools and humanities data, students will gain familiarity with the shape and prominent features of the extensive landscape of digital humanities research, along with some of the basic skills required to navigate it.</td>
</tr>
</tbody>
</table>
Data Storytelling
Restricted to students in the Information Sciences department. MUST CHOOSE 2 or 4 Credit Hours. All other students need department approval. Email ischool-advising@illinois.edu. ###
An introduction to understanding data as a source for storytelling and to telling stories based on data. This process will include understanding and analyzing data sets to find informative aspects, changes, or contrasts that will provide the basic information for developing stories. Course participants will learn storytelling concepts, narrative theories, and performance techniques and develop stories in a collaborative workshop style. Students will work with data visualization toolkits, which will involve variable levels of coding and skill. By using storytelling techniques with data, students can develop, and tell well-evidenced stories, organizations can make better data-driven decisions.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Section</th>
<th>Type</th>
<th>Time</th>
<th>Days</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68919</td>
<td>101</td>
<td>Laboratory-Discussion</td>
<td>DT 09:30 AM - 12:20 PM</td>
<td>R</td>
<td>Torvik, V</td>
</tr>
</tbody>
</table>

Data Mining
Restricted to Graduate - Urbana-Champaign.
MUST CHOOSE either 2 or 4 Credit Hours. ### Data mining refers to the process of exploring large datasets with the goal of uncovering interesting patterns. This process usually involves a number of tasks such as data collection, pre-processing, & characterization; model fitting, selection, & evaluation; classification, clustering, & prediction. Although data mining has its roots in database management, it has grown into a discipline that focuses on algorithm design (to ensure computational feasibility) & statistical modeling (to separate the signal from the noise). It draws heavily upon a variety of other disciplines including statistics, machine learning, operations research, & information retrieval. Will cover the major data mining concepts, principles, & techniques that every information scientist should know about. Lectures will introduce & discuss the major approaches to data mining; computer lab sessions coupled w/assignments will provide hands-on experience with these approaches; term projects offer the opportunity to use data mining in a novel way. Mathematical detail will be left to the students who are so inclined.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Section</th>
<th>Type</th>
<th>Time</th>
<th>Days</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71784</td>
<td>101</td>
<td>Online</td>
<td>DTO 07:00 PM - 09:00 PM</td>
<td>M</td>
<td>-</td>
</tr>
</tbody>
</table>

Data Mining
Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
For Course Description see IS 590 DT.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Section</th>
<th>Type</th>
<th>Time</th>
<th>Days</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68743</td>
<td>101</td>
<td>Lecture-Discussion</td>
<td>DV 10:00 AM - 12:50 PM</td>
<td>W</td>
<td>Turk, M</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Data Visualization
Restricted to MS:Information Management-UlUIC. ### Data visualization is crucial to conveying information drawn from models, observations or investigations. This course will provide an overview of historical and modern techniques for visualizing data, drawing on quantitative, statistical, and network-focused datasets. Topics will include construction of communicative visualizations, the modern software ecosystem of visualization, and techniques for aggregation and interpretation of data through visualization. Particular attention will be paid to the Python ecosystem and multi-dimensional quantitative datasets.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Section</th>
<th>Type</th>
<th>Time</th>
<th>Days</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69189</td>
<td>101</td>
<td>Lecture-Discussion</td>
<td>DW 01:00 PM - 03:50 PM</td>
<td>F</td>
<td>Wonderlich, M</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Data Warehousing and BI
Restricted to students in the Information Sciences department.
All other students need department approval. Email ischool-advising@illinois.edu. ### This course examines the construction of a data warehouse and business intelligence system. It will review the roles and requirements of building the system, including data modelling and business intelligence product design. This course will explore real-world case studies of data warehouse and business intelligence projects leading to a final project to design a solution for a business case.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Section</th>
<th>Type</th>
<th>Time</th>
<th>Days</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71862</td>
<td>101</td>
<td>Lecture-Discussion</td>
<td>ED2 04:30 PM - 05:50 PM</td>
<td>R</td>
<td>Wilson, W</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
Exhibit Design & Installation

Page 23 - Information Sciences, Fall 2019
This course meets the last 8 weeks of the semester. The opening night of any exhibition is the culmination of many months and sometimes years of planning centered around an initial core idea for a show. After that idea has gelled into a working concept, it is handed to Design and Installation Specialists to see what is really possible. Can we have all the art suspended from wires? Can the ceiling support a replica of a sea mine? Can we devise a secure vitrine for this priceless manuscript? Does this meet ADA restrictions? How will everything fit together? Can we get that look? This course will address how exhibitions attains a specific "look"? This is not a course on developing or curating the information, but rather a course on presenting that information in the most compelling way. We will look at the planning, fabricating, painting, building, and installing large parts of our work. We also have to consider that nothing, with few exceptions, is permanent. Our work needs to be secure and stable, but also reversible to make way for the next show. We will also survey the conceptual and procedural dimensions of carrying an exhibition through from curatorial musings to the reality of opening night. We will cover the techniques and processes that begin with a dialogue and move into the concrete. We will discuss the "what's possible" response to the initial idea. We will discuss the collaborative aspects of working with Curators, Directors of Cultural Institutions, Registrars, Collections Managers and Architects. The course will be a mix of discussion and hands-on experience with some courses taking place in the Krannert Art Museum workshop.

Location: Room 17, Krannert Art Museum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Delivery Method</th>
<th>Time</th>
<th>Days</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68994</td>
<td>Online</td>
<td>07:00 PM - 09:00 PM</td>
<td>M</td>
<td>Oberg, S</td>
</tr>
<tr>
<td>71799</td>
<td>Online</td>
<td>01:00 PM - 03:00 PM</td>
<td>W</td>
<td>Hinchliffe, L</td>
</tr>
<tr>
<td>70655</td>
<td>Online</td>
<td>06:00 PM - 08:00 PM</td>
<td>T</td>
<td>Egan, K</td>
</tr>
<tr>
<td>70500</td>
<td>Online</td>
<td>06:00 PM - 08:00 PM</td>
<td>M</td>
<td>Craig, A</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
E-Resources Management
Restricted to students in the Information Sciences department. All other students need department approval. Email ischool-advising@illinois.edu. ### In-depth exploration of current topics in the rapidly changing world of e-resources management in libraries and information centers. Discusses trends, problems, and issues relating to how e-resources are reshaping the entire spectrum of library service. Example areas of focus include open access publishing, scholarly communication, proprietary as well as open source e-resources management systems, licensing and copyright issues, consortia, usage statistics, balancing e-resources with more traditional collections and services, and intellectual access challenges in a highly diffuse information environment.

Credit Hours: 4 hours
Eval & Assess of Libr Services
Restricted to students in the Information Sciences department. Restricted to Graduate - Urbana-Champaign.
[Evaluation and Assessment of Library Services] Introduction to theories, approaches, and methodologies for evaluation and assessment of library programs and services. Explores assessment and evaluation models through lenses of user needs, policy and compliance, continuous improvement, and performance review as well as communication with stakeholders.

Credit Hours: 2 hours
Grant Writing for Libraries
### An introduction to the craft of writing and submitting successful grant applications. Grant writing is critical for multi-type libraries, nonprofit information entities, and other service-based organizations. Through a combination of individual and group assignments, and peer and instructor review, students will learn how to identify grant sources and strategically target their writing to those sources.

Credit Hours: 2 hours
Grant Writing for Libraries
### An introduction to the craft of writing and submitting successful grant applications. Grant writing is critical for multi-type libraries, nonprofit information entities, and other service-based organizations. Through a combination of individual and group assignments, and peer and instructor review, students will learn how to identify grant sources and strategically target their writing to those sources.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Type</th>
<th>Code</th>
<th>Time</th>
<th>Day</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70545</td>
<td>Lecture-Discussion</td>
<td>ML</td>
<td>11:00 AM - 01:50 PM</td>
<td>W</td>
<td>Bosch, N</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Machine Learning Team Projects
Instructor Approval Required
Restricted to students in the Information Sciences department.
Instructor approval needed, email pnb@illinois.edu. Prerequisites: Demonstrated ability and must have taken one of the following courses, IS 590-Data Mining, IS 590-Methods in Data Science, CS 412-Introduction to Data Mining, CS 446-Machine Learning.

### In this course students will build upon their previously acquired skills in machine learning to undertake a variety of team-based project which apply appropriate machine learning techniques to one or more real-world datasets to gain useful actionable insights. Teams will also document their analyses and findings, explaining the strengths weaknesses and reliability of their approaches.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Type</th>
<th>Code</th>
<th>Time</th>
<th>Day</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68852</td>
<td>Lecture-Discussion</td>
<td>OD</td>
<td>01:00 PM - 03:50 PM</td>
<td>T</td>
<td>Dubin, D</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Ontology Development
Restricted to students in the Information Sciences department.
An introduction to formal ontology focusing on development and implementation issues and contemporary ontology software tools and languages. IS 561 recommended before enrolling.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Type</th>
<th>Code</th>
<th>Time</th>
<th>Day</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70557</td>
<td>Lecture-Discussion</td>
<td>OM</td>
<td>02:00 PM - 04:00 PM</td>
<td>R</td>
<td>Wickes, E</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
Open Data Mashups
Restricted to students in the Information Sciences department.
### Data sharing & modern open data standards have been creating large repositories of data that remain disconnected. Many data science & machine learning techniques are boosted by incorporating data representing a variety of domains & granularities. Topics on data curation, data cleaning, copyright, web scraping, storage, processing & automation will be reviewed. This course seeks to explore techniques & perspectives of combining various data sources to create a dataset ready for analysis, but in a project oriented space so that each topic is synthesized with practice & experienced in context. Students will select a project area & explore the technical & conceptual requirements of that project space, eventually producing a proof of concept around it. All project domains & area are open, with the only requirement be that they combine several data sources into a new dataset. This course is meant for students who have completed at least two semesters of coursework, are comfortable with programming in Python (the project can be completed in any language, but instruction will be in Python), & desire a space to explore & develop a capstone or independent study project. However, further work on the project is not a requirement. Guest speakers & field experts from the University Library will be invited. Students will be encouraged to share & publish their datasets at the end of the semester. Prerequisites: IS452 or demonstrated programming Experience, 20 hrs of completed coursework.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Type</th>
<th>Code</th>
<th>Time</th>
<th>Day</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71803</td>
<td>Online</td>
<td>OMO</td>
<td>02:00 PM - 04:00 PM</td>
<td>R</td>
<td>Wickes, E</td>
</tr>
</tbody>
</table>

Credit Hours: 2 hours
Open Data Mashups
For Course Description see IS 590 OM.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Type</th>
<th>Code</th>
<th>Time</th>
<th>Day</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69195</td>
<td>Lecture-Discussion</td>
<td>PR</td>
<td>09:00 AM - 11:50 AM</td>
<td>W</td>
<td>Weible, J</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Progr Analytics & Data Process
Restricted to students in the Information Sciences department.
All other students need department approval. Email ischool-advising@illinois.edu. Prerequisite: LIS/IS452; or equivalent programming knowledge, w/consent of instructor. ### Building on the fundamentals introduced in LIS/IS452, this course adds skills, data structures, tools, & patterns needed for developing & modifying software to solve more complex problems & to improve code
maintainability & reliability. These skills are relevant to many types of programming, but many scenarios used will involve data analysis, conversion, validation & processing pipelines. The course helps prepare students for work on larger projects with multiple developers. Includes test-driven design, more OOP design concepts, refactoring, profiling, introductory parallel processing & more. Primarily uses the Python language.

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Time</th>
<th>Day</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69166</td>
<td>Online</td>
<td>PRO</td>
<td>06:00 PM - 08:30 PM</td>
<td>T</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Progr Analytics & Data Process
Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
Building on the fundamentals introduced in (L)IS 452, this course adds skills, data structures, tools, and patterns needed for developing and modifying software to solve more complex problems and to improve code maintainability and reliability. These skills are relevant to many types of programming, but many scenarios used will involve data analysis, conversion, validation, and processing pipelines. The course helps prepare students for work on larger projects with multiple developers. Includes test-driven design, more OOP design concepts, refactoring, profiling, introductory parallel processing, and more. Primarily uses the Python language. Prerequisite: (L)IS452; or equivalent programming knowledge, with consent of instructor.

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Time</th>
<th>Day</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71785</td>
<td>Lecture-Discussion</td>
<td>PV</td>
<td>10:00 AM - 12:50 PM</td>
<td>W</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Privacy in the Internet Age
Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.
Open to graduate students campuswide. ### Description: This course will examine the notion of privacy in its historical context, and in relation to existing and projected information/communication technologies and institutional arrangements. Topics covered include the nature of "identity"; protecting personal data; technologies for personal identification, societal surveillance, and privacy enhancement; technologies for describing, monitoring, and controlling levels of privacy; changes in cultural, legal, and policy understandings of privacy and privacy rights; needs for and approaches to privacy protection in a variety of institutions and industries; security-privacy interactions and policy implications; and specific cases such as privacy implications of automated transportation systems, medical records, online behavior, Google Maps, information mining, trans-border data flow, credit card theft, etc.

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Time</th>
<th>Day</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>71804</td>
<td>Lecture-Discussion</td>
<td>PZ</td>
<td>09:00 AM - 11:50 AM</td>
<td>F</td>
</tr>
</tbody>
</table>

Data and Algorithm Puzzles
Restricted to students in the Information Sciences department.
Restricted to Graduate - Urbana-Champaign.

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Time</th>
<th>Day</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68995</td>
<td>Online</td>
<td>WDO</td>
<td>06:30 PM - 08:30 PM</td>
<td>M</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Web Content Strategy & Mngmt
Restricted to students in the Information Sciences department.
### All other students need department approval. Email ischool-advising@illinois.edu. This course focuses on the basics of web site design, content development, constructing web pages with standard HTML and CSS. We will also cover usability and accessibility, content management system options, multi-media and interactivity in the context of standard HTML and CSS, procedures and policies for organizations, with a concentration on public, academic and special libraries. Students will investigate, design, and draft a representative site. Students may work with non-profit and library clients in constructing and redesigning their web sites or design and construct their own personal professional pages. Laptop Required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
<th>Time</th>
<th>Day</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70546</td>
<td>Online</td>
<td>WFO</td>
<td>06:30 PM - 09:00 PM</td>
<td>W</td>
</tr>
</tbody>
</table>

Credit Hours: 4 hours
Web Devel using App Framwrk
 Restricted to students in the Information Sciences department.
### Web Development Using Application Framework: A course in the use and evaluation of Web application frameworks for system architects, designers, and developers. Prerequisites: • Experience in creating static Web sites using HTML and CSS • Experience in Python programming (IS452 or equivalent) • Experience in creating dynamic Web sites using tools like PHP is helpful but not required. • Experience in using relational databases is helpful but not required.

**IS 591 Practicum** credit: 2 hours.
Supervised field experience of professional-level duties in an approved library or information center. 2 graduate hours. No professional credit. Approved for S/U grading only. A maximum of 2 hours may be applied toward a degree program. Prerequisite: Completion of 12 graduate hours of information sciences courses; submission of Practicum forms.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69001</td>
<td>Independent Study</td>
<td></td>
<td>ARRANGED -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Departmental Approval Required

**IS 592 Independent Study** credit: 2 TO 4 hours.
Permits the intermediate or advanced student opportunity to undertake the study of a topic not otherwise offered in the curriculum or to pursue a topic beyond or in greater depth than is possible within the context of a regular course. 2 to 4 graduate hours. No professional credit. May be repeated by MS students to a maximum of 4 graduate hours. May be repeated by CAS students to a maximum of 8 graduate hours. May be repeated by PhD students to a maximum of 16 graduate hours. Prerequisite: Submission of "Request to Enroll in IS 592" form.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>68999</td>
<td>Independent Study</td>
<td></td>
<td>ARRANGED -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Departmental Approval Required

**IS 593 CAS Project** credit: 0 TO 8 hours.
Individual study of a problem in library and information science; forms the culmination of the Certificate of Advanced Study program. 0 to 8 graduate hours. No professional credit. Approved for S/U grading only. May be repeated. Only eight hours will apply to the Certificate of Advanced Study. Prerequisite: Admission to Certificate of Advanced Study program in library and information science; submission of "Request to Enroll in IS 593 - CAS Project" form.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69000</td>
<td>Independent Study</td>
<td></td>
<td>ARRANGED -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Departmental Approval Required

**IS 594 Information Sciences Practice** credit: 0 hours.
Full-time or part-time practice of of any information sciences in an off-campus information science environment. 0 graduate hours. No professional credit. Approved for S/U grading only. May be repeated. Prerequisite: IS students only.

Contact ischool-advising@illinois.edu for further information.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69086</td>
<td>Independent Study</td>
<td></td>
<td>ARRANGED -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IS 599  **Thesis Research**  credit: 0 TO 16 hours.
Individual study and research. 0 to 16 graduate hours. No professional credit. Approved for S/U grading only. May be repeated. M.S. candidates, 0 to 8 hours. Doctoral candidates, 0 to 16 hours. Prerequisite: MS students must submit a "Request to Enroll in IS 599 - Master's Thesis" form.

<table>
<thead>
<tr>
<th>CRN</th>
<th>Type</th>
<th>Section</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>69002</td>
<td>Independent Study</td>
<td></td>
<td>ARRANGED -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Departmental Approval Required