

Syllabus INLS 201

Foundations of Information Science, Spring 2016

Instructor: Jacob Hill
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Class Meeting: 302 Murphey Hall, Tuesday & Thursday 12:20-1:45
Office Hours: By appointment

Prerequisites:

This course has no prerequisites, but it is itself a prerequisite for anyone contemplating applying for admission to the BSIS program under [the pre-2014 catalog](#) or under [the 2014 catalog](#) at SILS.

Course Description:

We will examine the evolution of information science; information representation, organization and management; information in social organizations; search and retrieval; human information seeking and interaction; policy, ethics and scholarly communications.

Our objectives:

- We will gain a basic understanding of the history, concepts, techniques and terminology used in information science.
- We will also develop an understanding of the various problem areas of information science.
- We will become aware of our own information behaviors.
- We will be able to state specific ways that information science relates to everyday information problems.

Course Policies:

I will come to every class prepared and I expect the same from you. I have assigned a moderate amount of reading with the expectation that students will read carefully (unless otherwise stated). Much of the class time will be spent mastering difficult concepts individually and through group assignments. Attendance and participation is 20% of your grade. Short quizzes and/or other assessments may be given on the readings. If you are not prepared for class, you will have difficulty mastering the material and it will show in your final grade. You will need a laptop in class to complete many of the assignments, however, they can also be a distraction. During lectures, you may be asked to close your laptops.

Assignments will be submitted through GitHub unless otherwise stated.

Policies on Academic Integrity and Diversity:

Chapel Hill has had a student-administered honor system and judicial system for over 100 years. Because academic honesty and the development and nurturing of trust and trustworthiness are important to all of us as individuals, and are encouraged and promoted by the honor system, this is a most significant University tradition. More information is available at <http://studentconduct.unc.edu/honor-system>

The UNC Honor Code is in effect for all work in this course. Chapter 5 of the “Instrument of Student Judicial Governance” (<https://studentconduct.unc.edu/sites/studentconduct.unc.edu/files/documents/Instrument.pdf>) discusses Academic Dishonesty; you are responsible for being familiar with, and abiding by all aspects of the "Instrument".

Grading Breakdown & Policies:

Annotated Bibliography 25%
Attendance & Participation 20%
Concept Review 15%
Final Presentation 10%
Midterm Exam 1 10%
Midterm Exam 2 10%
Final Exam 10%

Assignment Descriptions:

The **Annotated Bibliography** will be an ongoing assignment. Each week you will add a new entry based on the readings assigned for that week. The entries are due one hour before the start of class. Late entries will be docked .25 points for the first day and .5 points each day thereafter. You will cite the article or book chapter according to any standard citation format and beneath the citation you will write detailed notes on the reading. Questions to consider are: What is the author's main thesis or argument? Does the thesis seem to be highly disputed or generally accepted? If it is highly disputed, what are alternative arguments? If generally accepted, the evidence is less significant. What evidence is given to support this thesis? What are the key points of the article? How can the article be organized into a conceptual outline? How does the reading relate to other readings? Cut and paste these questions at the top of your annotated bibliography as a guide. **DO NOT** use these questions rigidly. All questions will not apply to all articles. Use them as a loose guide to think about the scope of your entry. You will have access to other students' bibliographies, however, your work should be your own. **DO NOT** copy, paraphrase, or use in any way other students' work. It will be quite easy for me to tell if you have done so. It is plagiarism, just don't do it! Each entry will be graded on a scale of 0 to 3:

- 0 = you didn't do the entry, or it was significantly late
- 1 = little thought put into the entry; quotations were haphazardly chosen or overused
- 2 = overall decent entry, but missing some significant points
- 3 = strong entry; clear articulation of main points, underlying problems, open questions, arguments, etc.; able to link reading to larger body of literature through one or more significant concepts or questions

The **Concept Review** is to ensure that students review and integrate concepts on a regular basis. In general, it should be updated weekly, however, if you miss a week on occasion, I will not penalize you. You should not miss two weeks in a row and, on average, you should update it weekly. These concepts will be used to prepare all of your exams. It is a means of narrowing the material covered in the readings and during class so you know what is expected from you and to ensure that you don't wait until the week before the test to try to cram in all the material. You will be graded on the frequency of your updates as well as the quality. Terms will be emailed each week and you will be required to add these terms to your list along with a definition and examples, when appropriate.

These assignments are intended to maximize learning while avoiding large amounts of work at the end of the semester. Students who do the work appropriately and in a timely manner will be

essentially done several weeks before the end of the semester. This will allow you to focus on work in other classes, or relax. The flip side of this is that if you don't do the work as you should throughout the semester, you won't have options to bring your grade up significantly the last two weeks of class. **Please contact me early in the semester if you have any questions about what you should be doing!**

The **Final Presentation** is an opportunity for you to explore an area of information science that is exciting/interesting to you. This is an opportunity for you to learn more about an area of information science that you may want to work in. Choose five articles in one area of information science, add them to your annotated bibliography with entries and prepare a short presentation (8-10 minutes) for the class. A detailed set of questions will be distributed later in the semester. For now, consider why this area interests you; why it is important; what is it (i.e. how would you define it); what are its major research questions; what jobs are associated with it; etc. Presentations will start April 5. We will do several each class until everyone has had a chance to present. Classmates will listen carefully to each presentation and ask thoughtful questions.

Standard Grading Description:

The following grade scale will be used **AS A GUIDELINE** (subject to any curve) for undergraduate students. Definitions are from: <http://registrar.unc.edu/academic-services/grades/explanation-of-grading-system/> (underlining is my emphasis)

Grade Range	Definition
A 90-100%	Mastery of course content at the highest level of attainment that can reasonably be expected of students at a given stage of development. The A grade states clearly that the students have shown such outstanding promise in the aspect of the discipline under study that he/she may be strongly encouraged to continue.
B 80-89.9%	Strong performance demonstrating a high level of attainment for a student at a given stage of development. The B grade states that the student has shown solid promise in the aspect of the discipline under study
C 70-79.9%	A totally acceptable performance demonstrating an adequate level of attainment for a student at a given stage of development. The C grade states that, while not yet showing unusual promise, the student may continue to study in the discipline with reasonable hope of intellectual development.
D 60-69.9%	A marginal performance in the required exercises demonstrating a minimal passing level of attainment. A student has given no evidence of prospective growth in the discipline; an accumulation of D grades should be taken to mean that the student would be well advised not to continue in the academic field.

F 0-59.9%

For whatever reason, an unacceptable performance. The F grade indicates that the student's performance in the required exercises has revealed almost no understanding of the course content. A grade of F should warrant an advisor's questioning whether the student may suitably register for further study in the discipline before remedial work is undertaken.

Communications:

The best way to get in contact with me (other than talking to me after class or during my office hours) is by email: jthill@live.unc.edu. Note that I receive a large amount of email and while I try to reply to student emails within 48 hours, there are times that it may take me 2-3 days to reply, especially on weekends. You may also call or text me at 702-335-2653.

Emails and text messages are both good ways of letting me know if you can't be in class, or if you want to make an appointment with me. If you want to discuss something we talked about in class, an assignment or some other matter, please make an appointment with me.

Class Schedule

January 12

Introduction to Github

January 14

History of Information Science

To read before this class:

Saracevic, T. (2010). Information Science. In *Encyclopedia of Library and Information Sciences* (Third Edit, pp. 2570–2585).

January 19

History of Information Science

To read before this class (pages 2577-2585):

Buckland, M. (2012). What Kind of Science Can Information Science Be? *Journal of the American Society for Information Science and Technology*, 63(1), 1–7. doi:10.1002/asi

January 21

What is Information?

To read before this class:

Lester, J., and W. C. Koehler. "Fundamental Concepts of Information." In *Fundamentals of Information Studies*, 16–25. 2nd ed. New York: Neal-Schuman, 2007.

January 26

Information Organization

To read before this class:

Marchionini, Gary. "The Many Meanings of Information." In *Information Concepts: From Books to Cyberspace Identities*, 1–9. Synthesis Lectures on Information Concepts, Retrieval, and Services. Morgan & Claypool, 2010. <http://www.morganclaypool.com/doi/abs/10.2200/S00306ED1V01Y201010ICR016>.

January 28

Information Organization

To read before this class:

Furner, J. (2012). FRSAD and the Ontology of Subjects of Works. *Cataloging & Classification Quarterly*, 50(February 2014), 494–516. doi:10.1080/01639374.2012.681269

February 2

Information Organization

To read before this class:

Barbara, K. (1999). The role of classification in knowledge representation and discovery. *Library Trends*, 48(1), 22–47.

February 4

Information Structures

To read before this class:

Morville, Peter, and Louis Rosenfeld. "Thesauri, Controlled Vocabularies, and Metadata." In *Information Architecture for the World Wide Web*. 3rd ed. Sebastopol, California: O'Reilly, 2006. PDF.

February 9

Information Structures: XML (Flipped Classroom)

To read before this class:

Glushko, Robert J. "XML Foundations." In *Document Engineering*, 42-72. Cambridge, Massachusetts: MIT Press, 2005. http://people.ischool.berkeley.edu/~glushko/DocumentEngineeringBookDraft/DEBook/ch2_FINAL.pdf.

Make sure you understand the basics of XML including elements, attributes, values, well-formedness, and validation. You should come to class ready to work.

February 11

Information Structures: Relational Databases

To read before this class:

Roman, Steven. "Introduction." In *Access Database Design and Programming*, 3–10. 3rd ed. Sebastopol, California: O'Reilly, 2002.

Roman, Steven. "The Entity-Relationship Model of a Database." In *Access Database Design and Programming*, 11–17. 3rd ed. Sebastopol, California: O'Reilly, 2002.

February 16

Information Structures: Relational Databases

To read before this class:

Roman, Steven. "Implementing Entity-Relationship Models." In *Access Database Design and Programming*, 18–29. 3rd ed. Sebastopol, California: O'Reilly, 2002.

February 18

Search & Retrieval, Midterm Review

To read before this class:

Croft, W. Bruce, Donald Metzler, and Trevor Strohman. "Search Engines and Information Retrieval." In *Search Engines: Information Retrieval in Practice*, 1–12. Boston: Addison-Wesley, 2010.

Please come prepared with questions about any of the material we've covered during this unit.

February 23

Midterm Exam #1

February 25

Search & Retrieval

To read before this class:

Croft, W. Bruce, Donald Metzler, and Trevor Strohman. "Architecture of a Search Engine." In *Search Engines: Information Retrieval in Practice*, 13–29. Boston: Addison-Wesley, 2010.

March 1

Search & Retrieval: Indexing

To read before this class:

Smucker, Mark D. "Information representation." In *Interactive information seeking, behaviour and retrieval*, edited by Ian Ruthven and Diane Kelly, 77–93. London: Facet Pub., 2011.

March 3

Search & Retrieval: Retrieval Models

To read before this class:

Croft, W. Bruce, Donald Metzler, and Trevor Strohman. "Retrieval Models." In *Search Engines: Information Retrieval in Practice*, 233–241. Boston: Addison-Wesley, 2010.

March 8

Search & Retrieval: Networks

To read before this class:

Easley, David, and Jon Kleinberg. "Overview." In *Networks, crowds, and markets: reasoning about a highly connected world*, 1–20. New York: Cambridge University Press, 2010. <http://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch01.pdf>.

March 10

Search & Retrieval: Networks

To read before this class:

Easley, David, and Jon Kleinberg. "Graphs." In *Networks, crowds, and markets: reasoning about a highly connected world*, 23–46. New York: Cambridge University Press, 2010. <http://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch02.pdf>.

March 11–March 20

Spring break

March 22

The Structure of the Web

To read before this class:

Easley, David, and Jon Kleinberg. "The Structure of the Web." In *Networks, crowds, and markets: reasoning about a highly connected world*, 375–395. New York: Cambridge University Press, 2010. <http://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch13.pdf>.

March 24

Web Search

To read before this class:

Easley, David, and Jon Kleinberg. "Link Analysis and Web Search." In *Networks, crowds, and markets: reasoning about a highly connected world*, 397–495. New York: Cambridge University Press, 2010. <http://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch14.pdf>.

You can skip section the last part of section 14.3 (pages 409–412) and section 14.6.

March 29

Midterm Review

Please come prepared with questions about any of the material we've covered during this unit.

March 31

Midterm Exam #2

April 5

Information Needs & Behaviors

To read before this class:

Morville, Peter, and Louis Rosenfeld. "User Needs and Behaviors." In *Information Architecture for the World Wide Web*. 3rd ed. Sebastopol, California: O'Reilly, 2006.

April 7

Information Needs & Behaviors

To read before this class (Sections 3.1 to 3.4):

Hearst, Marti. "Models of the Information Seeking Process." In *Search User Interfaces*. Cambridge, UK: Cambridge University Press, 2009. http://searchuserinterfaces.com/book/sui_ch3_models_of_information_seeking.html.

April 12

Information Needs & Behaviors

To read before this class (Sections 3.5 to 3.8):

Hearst, Marti. "Models of the Information Seeking Process." In *Search User Interfaces*. Cambridge, UK: Cambridge University Press, 2009. http://searchuserinterfaces.com/book/sui_ch3_models_of_information_seeking.html.

April 14

Human-Computer Interaction

To read before this class:

Shneiderman, B., and C. Plaisant. "Usability of Interactive Systems." In *Designing the user interface: strategies for effective human-computer interaction*. Upper Saddle River, N.J.: Addison-Wesley, 2010.

April 19

Search User Interfaces

To read before this class:

Hearst, Marti. "The Design of Search User Interfaces." In Search user interfaces. Cambridge; New York: Cambridge University Press, 2009. http://searchuserinterfaces.com/book/sui_ch1_design.html.

April 21

Information Policy

To read before this class:

Grimmelmann, James. "What to Do About Google?" Communications of the ACM 56, no. 9 (2013). <http://cacm.acm.org/magazines/2013/9/167145-what-to-do-about-google/>.

April 26

Catch-up / Wrap-Up / Review / The Future

To read before this class:

Friedman, Batya, and Helen Nissenbaum. "Bias in Computer Systems." ACM Trans. Inf. Syst. 14, no. 3 (July 1996): 330–347. <http://doi.acm.org/10.1145/230538.230561>.

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