

INLS 703: Science Information

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Term	Spring 2013	E-mail	mtpeper@gmail.com
Classroom	Manning 304	Meetings	Wednesdays 6:00-8:45

Description:

From the SILS course descriptions: "Survey of the communication of scientific information and the information sources in the physical and biological sciences; emphasis on major bibliographic and fact sources, including online reference services." In this course, we will extend this to include additional areas of discussion and study that are important to the work of science librarians. These include instruction, outreach, service to scientific patrons, research data, user need assessment, etc.

Course objectives:

By the end of the course, it is expected that students will be able to...

- Identify resources or types of resources that meet particular needs of scientists or engineers
- Appreciate the range and nature of responsibilities and activities of information professionals in scientific and technical work environments
- Design and teach sessions about scientific and technical resources
- Communicate scientific research findings in writing and oral presentation
- Articulate their skills in scientific research to potential employers

Assignments:

- Resource instruction session - ongoing
- User analysis and application
 - Initial analysis of selected user population – February 13
 - Application of analysis – March 6
- Report on new research area
 - Written report – April 3
 - Oral reports during class time – April 10, April 17
- Cover letter
 - Draft for peer review – April 24
 - Final cover letter – May 6

Resource instruction session

Each week when we discuss resources in a particular scientific area, a student will lead the introduction into that discipline's set of resources. Each student will sign up for specific topic on a specific date. Students are encouraged to be creative in designing these sessions and devising interesting ways of improving your colleagues' understanding of the material. Please discuss the plan for your session with the instructor by the class session prior to the one in which you will be instructing.

User analysis and application

Understanding your user population is essential for any information professional and is certainly the case for users who are scientists/engineers, science/engineering students or members of the public with scientific information needs. This assignment is to select a specific user population (real or hypothetical, although hypothetical populations need to be described in great detail) and to analyze its areas of strength/emphasis, mission, scope, environment, success metrics, etc. The document you create should be descriptive and useful to a librarian supporting this population. You will be

working in small groups to select and analyze your population. Form groups and select your user population by January 23 for instructor approval and complete your analysis by February 13.

After analyzing the user population as a group, you will work individually to put this analysis to use. This could include a recommendation for changes to a collection, allocating a given budget for information resources to support your population, crafting an outreach plan, creating a menu of services or other activities. Be creative and follow your interests to guide you in how you approach the second part of this assignment. This part is left intentionally without prescription to allow each student to plan in a way that fits the user population's needs.

Report on new research area

Each student will identify and learn about a relatively new area of research in science or technology (new in the last 10-15 years). This topic will be the subject of a 15 - 20 minute oral presentation scheduled for the end of the semester, and a written report to be submitted on April 3 by 6:00 p.m. The topic can be anything from a new invention, area of research, new medical procedure, or a new method of carrying out research that is accelerating discovery. Students are free to choose their own research area. The goal is to become familiar with the science and the idea, and be able to communicate that topic to a general audience, with particular emphasis on carrying out library research. For ideas about research topics, look in periodicals like Science News, Scientific American, New Scientist, Discover, or science articles from the New York Times that may give an overview of a topic or emerging technology. Ask early if you need help with a topic.

Cover letter

The cover letter is an opportunity for you to articulate what you see as your strengths or areas of expertise with scientific and technical information resources, services, and instruction. If you are planning on working professionally in a specific type of science- or technology-related setting, use a recent, relevant posting for an open position as a tool for focusing and customizing your writing. If you are interested in demonstrating your professional expertise as a portion of some other anticipated career (e.g., working in a public library where science information might be useful), you can think of this writing as a chance to articulate what expertise you have developed, what you understand about how scientific and technical information resources are used, which gaps in your own skill-set could be areas for improvement, and any plans that you might have for continuing to develop your professional expertise. Your writing should be a selective synthesis of "what matters" to you after spending a semester working with scientific and technical information resources. We will complete a peer-review activity with a draft of your cover letter during class session 15 (4/24), so you will have a chance to incorporate feedback into your final submission, which is due in my SILS mailbox on 5/6 by 4:00pm.

Grading:

Based on UNC Graduate School Handbook (<http://handbook.unc.edu/grading.html>), semester grades will be H, P, L, or F for graduate students.

- 95-100 = H
- 80-95 = P
- 70-80 = L
- Below 70 = F

Final grades will be based on your work on the following:

- Class preparation and participation (includes smaller assignments not included elsewhere) – 20%
- Resource instruction session – 20%
- User analysis – 15%
- Application of user analysis – 15%
- Research area oral and written report – 20%
- Cover letter – 10%

If you have any questions or concerns about your grade(s) in this course, please feel free to ask the instructor.

Course Schedule:

Week	Date	Topic	Work Due
1	January 9	Introductions; Course outline	
2	January 16	Scientific publishing, open access, copyright	Research review of pop story
3	January 23	Professional associations, General/multidisciplinary sources	User population selection
4	January 30	Answering general questions, Biology sources	
5	February 6	Answering Biology questions, Environmental sources	
6	February 13	Answering Environmental questions, Chemistry sources	User population analysis
7	February 20	Answering Chemistry questions, Scientific/technical data	Research area selection
8	February 27	Reporting on data repositories, Physics/Math sources	Data repository reports
9	March 6	Answering Physics/Math questions, Earth Science sources	Application of user analysis
	March 13	SPRING BREAK	
10	March 20	Answering Earth Science questions, Engineering/CS sources	
11	March 27	Answering Engineering/CS questions, Health Science sources	
12	April 3	Answering Health Science questions,	Written research report
13	April 10	Reporting on research area	Oral research report
14	April 17	Reporting on research area	Oral research report
15	April 24	Cover letter peer review, Conclusion	Draft cover letter

General guidelines for the course:

Preparing for class

To make the most efficient use of our time together, I expect students to have already (1) completed the required readings for that day and (2) done some amount of independent, self-directed investigation related to the week's topic (e.g., interacting with information sources mentioned in the readings, interacting with electronic resources as provided on the Web or as pathfinders from a nearby science library, locating relevant articles and other pieces of writing from the LIS community relating to the use/storage/organization of scientific and technical information). Please try to capture as many of your experiences/observations/reflections/questions in your notes before we meet for class.

Participating during (and reflecting after) class.

The majority of our time in class will be spent in hands-on activities and analyses—with examples often drawn directly from practice, from students' work experiences, and from any earlier coursework—and, as such, you should be confident in your understanding of the readings and the implications that these topics hold for your professional development. Many students may find it helpful to devote time immediately after class to reflect upon that day's discussions and jot brief notes for themselves to follow up with before the next session.

Writing, editing and orally presenting

If you have any concerns about the quality of your written or presented work for this class, please feel free to share drafts or ideas with the instructor or visit the UNC Writing Center (<http://writingcenter.unc.edu>). I generally agree with the following guidelines for writing and written work:

- (1) Do not presume that the reader can read your mind – anything you want the reader to visualize or consider or conclude, you must provide;
- (2) Do not presume that the reader feels the same way that you do about a given experience or issue – your argument cannot just assume as true the very things you're trying to argue for.*

* From "Authority and American usage," by D. F. Wallace, 2006, in *Consider the Lobster: And Other Essays* (p.106, fn. 59). New York: Little, Brown and Company [originally published in Harper's in 1999].

Periodic assessment of your learning and the class

In this class, regular feedback on your work—from me and from your peers—is integral to your success. Keep in mind that any criticism you give or receive should be, above all, constructive. Similarly, I have a strong interest in learning about which aspects of the course are helping or hindering your learning. I will periodically ask you to perform short assessments of your learning, the effectiveness of class activities and experiences, and the progress you've made on your class projects.

Late work, missing class, and other unfortunate events

Life is unpredictable, and occasionally circumstances beyond your control may have an impact on your life as a student. Advance notice of any anticipated difficulties is appreciated. Please ask me if you have any questions on how to successfully navigate this course and assignments.

SILS Diversity Statement

In support of the University's diversity goals and the mission of the School of Information and Library Science, SILS embraces diversity as an ethical and societal value. We broadly define diversity to include race, gender, national origin, ethnicity, religion, social class, age, sexual orientation and physical and learning ability. As an academic community committed to preparing our graduates to be leaders in an increasingly multicultural and global society we strive to:

- Ensure inclusive leadership, policies and practices;
- Integrate diversity into the curriculum and research;
- Foster a mutually respectful intellectual environment in which diverse opinions are valued;
- Recruit traditionally underrepresented groups of students, faculty and staff; and
- Participate in outreach to underserved groups in the State.

The statement represents a commitment of resources to the development and maintenance of an academic environment that is open, representative, reflective and committed to the concepts of equity and fairness.

Readings:

There is no required text for this class. Readings will be assigned based on the topic for the week's meeting. I have been selective about readings and limited the number included for each week so that students can focus on those that are most important. That being said, please come to class having completed the readings for each week.

Journal and periodical publications related to themes in this course:

- Issues in Science and Technology Librarianship (<http://www.library.ucsb.edu/istl/>)
- Science & Technology Libraries (<http://search.lib.unc.edu/search?R=UNCb5853717>)
- Sci-Tech News (<http://jdc.jefferson.edu/scitechnews/>)
- Science (<http://libproxy.lib.unc.edu/login?url=http://www.sciencemag.org/>)
- Nature (<http://libproxy.lib.unc.edu/login?url=http://www.nature.com/nature/archive/index.html>)
- Scientific American
(<http://libproxy.lib.unc.edu/login?url=http://www.nature.com/scientificamerican/archive/index.html>)

E-mail lists devoted to issues in scientific and technical information professionals:

- ACRL STS: <http://lists.ala.org/wvs/info/sts-l>
- PAMNET: <https://listserv.nd.edu/cgi-bin/wa?A0=PAMNET>
- CHMINF: <http://www.indiana.edu/~cheminfo/network.html>

* The instructor reserves to right to make changes to the syllabus, including project due dates and different readings. These changes will be announced as early as possible.

**Some elements of this course and syllabus were inspired or borrowed from Phil Edward's previous teaching of INLS-703 in Fall 2010.