Course Description:

Introduction to communication patterns and bibliographic control of information in the pure and applied sciences. Emphasis is on reference sources as they relate to user information needs and on the identification and optimization of appropriate search techniques, both manual and automated. This course reviews traditional paper-based reference sources to the sciences as well as a number of Internet-based resources in order to realistically acquaint students with options for scientific and technical information. The course provides an introduction to science librarianship, library services including reference, instruction, and collection development to scientists, science students, and non-scientific constituencies. Disciplines that will be examined include the health and biomedical sciences, the natural sciences (biology, geology, environmental sciences, and atmospheric sciences), mathematics and the physical sciences (chemistry and physics), and the applied sciences (engineering and computer sciences). Traditional and computer resources and searching strategies will be studied. Prerequisites: LIS 701 & 704

No Required Text:

Handouts will be provided in class, readings placed on reserve in the library and posted on Blackboard and through library databases.
Learning Objectives:

- Provide an introductory understanding of the field science reference and scientific research.
- Develop a framework for understanding the relations between technological innovations and the dynamic nature reference service in the sciences.
- Explore current issues and controversies in the field of science reference including social, political, ethical, and policy issues in information environments.
- Establish an understanding of the purposes, functions and processes of public, academic, school, special libraries and information centers that serve scientific audiences
- Understand existing information infrastructures and how science librarianship functions within such systems.
- Develop concrete research and critical thinking skills related to the science reference and how to evaluate sources from a variety of environments.

Assignments, Course Requirements and Grading

Reference Questions and Queries: 50% of final grade.

Sample reference questions will be distributed in class.

Collection Development Assignment: 10% of final grade

Pick an academic science library and create a book purchasing profile.

Create a Subject Guide webpage or online pathfinder aimed at middle school students: 10% of final grade

We will use Dreamweaver to create an online research guide designed to assist youngsters with a science project.

Group Presentation on SCIFINDER SCHOLAR: 10% of final grade

Design and deliver a Bibliographic Instruction session on using SciFinder Scholar.

Visit two Science Libraries: 10% of final grade

I will give you a list with contact information. Visit and report back to the class. You will also utilize the reference collection during these visits.
Find an article from the journal *Science and Technical Librarianship* and write a three page report. 10% of final grade

This online journal is perfect match for the goals of this class.

The course grading scale is as follows: A (95-100 points); A- (90 to 94 points); B+ (85-89 points); B (80-84 points); B- (77-79); C+ (74-76); C (70-74); C- (65-69); F (64 and below). Grading will follow GSLIS grading guidelines:

A: Outstanding achievement. Student performance demonstrates full command of the course materials and evinces a high level of originality and/or creativity that far surpasses course expectations; nearly flawless work.

A-: Excellent achievement. Student performance demonstrates thorough knowledge of the course materials and exceeds course expectations by completing all requirements in a superior manner.

B+: Good solid work. Student performance demonstrates strong comprehension of the course materials and exceeds course expectations on all tasks as defined in the course syllabus.

B: Satisfactory acceptable work. Student performance meets designated course expectations, demonstrates understanding of the course materials and performs at an acceptable level.

B-: Marginal work. Student performance demonstrates incomplete, substandard understanding of course materials, or absence of required work; indicates danger of falling below acceptable grading standard.

C+: Unsatisfactory work. Student performance demonstrates unsatisfactory understanding of course materials and inability to meet course requirements.

C: Unacceptable work. Student performance demonstrates incomplete and inadequate understanding of course materials.

C-: Poor work.

F: Failing grade.

Policies regarding completion of assignments:

It is the student’s responsibility to complete assignments and turn them in on time. Late assignments are strongly discouraged and the grade will lowered one full grade for each session an assignment is late. If the student has a crisis, s/he must bring this to my attention immediately if s/he expects any adjustment to the assignment schedule. I will then decide on a case-by-case basis if late penalties will be reduced or waived.
Class room policies regarding attendance and late arrival:

Students are expected to arrive to class on time and stay for the entire session. You are graduate students and adults and are responsible for your actions. Consequently, attendance will rarely be taken as a method of checking up on you.

Students who must miss a class due to religious observance, illness or other emergency should notify me by e-mail or phone before class time. Students are responsible for obtaining class materials distributed during their absence, for ensuring their familiarity with the material covered in class, and for completing any assignments on schedule.

You are expected to turn off all cell phones and pagers during class so that full attention can be given to the work at hand.

Statements about consequences for failure to meet the requirements of the course or classroom policies:

Students are expected to attend class, read the assigned texts, participate in class discussions, completely in-class and homework assignments in the time frame stated and to be present on exam days to turn in their exams. If problems arise in meeting these expectations, I am willing to work with you to resolve them. If problems continue on an ongoing basis and it becomes apparent to me that you are unable to meet the criteria for completing this course, the dean or acting dean will be notified and you will receive and “I”, “WX”, “WF” or “NC” for the course as is appropriate.

Academic Honesty and Integrity:

“All students of the GSLIS are expected to observe high standards of academic honesty and integrity. Any student whose conduct violates such standards may be subject to disciplinary action as determined by due process” (GSLIS Bulletin, p. 48). Please see the Dominican University Student Handbook for the full statement on academic integrity.
### Course Calendar

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>1/16/</td>
<td>Into, course Overview</td>
</tr>
<tr>
<td>1/23/</td>
<td>Read Bradford and Bronars</td>
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<tr>
<td>1/30/</td>
<td>Questions (1) due</td>
</tr>
<tr>
<td>2/6</td>
<td>NO CLASS THIS WEEK</td>
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<tr>
<td>2/13</td>
<td>Questions (2) due, Read Morris-Knower</td>
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<tr>
<td>2/20</td>
<td>Questions (3) due</td>
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<tr>
<td>2/27</td>
<td>Questions (4) due, Read Scott, Hauptman and Fish</td>
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<tr>
<td>3/6</td>
<td>Library Visit reports due</td>
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<tr>
<td>3/13</td>
<td>Questions (5) due, Collection Dev Project due, Read Darrymple</td>
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<tr>
<td>3/20</td>
<td>Questions (8) due, article review due</td>
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<tr>
<td>3/27</td>
<td>Questions (7) due, web page due</td>
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<tr>
<td>4/3</td>
<td>Questions (9) due, Read Fenstermacher</td>
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<tr>
<td>4/10</td>
<td>Easter Tuesday??</td>
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<tr>
<td>4/17</td>
<td>Questions (10) due, SciFinder presentation due</td>
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<tr>
<td>4/24</td>
<td>Library Visit reports due</td>
</tr>
<tr>
<td>5/1/07</td>
<td>Wrap Up</td>
</tr>
</tbody>
</table>

### Reading List:


Hauptman, Peter, “Fashionable Nonsense”. Journal of Information Ethics 13 no1 78-9 Spr 2004

Morris-Knower, James, “Phyllostachys aurea--didn't he work with Socrates? Reference work in science libraries by librarians who are not scientists” The Reference Librarian no. 72 (2001) p. 155-69


http://www.lib.utexas.edu/chem/info/citations.html
http://insidehighered.com/views/2006/05/08/altbach
http://www.physics.nyu.edu/faculty/sokal/
http://www.sla.org/division/dpam/subjects/astro.html
http://education.nasa.gov/home/index.html
http://cdsweb.u-strasbg.fr/astroweb.html
http://www.firstmonday.org/issues/issue9_12/starr/
http://jdupuis.blogspot.com/
http://www.istl.org/06-fall/index.html
http://www.svsu.edu/mathsci-center/resources_mathsites.cfm
http://www.eduref.org/cgi-bin/print.cgi/Resources/Subjects/Mathematics/Lesson_Plans.html
http://www.e-streams.com/

Databases to be examined: Agricola, Annual Reviews, Biological Abstracts, Biological & Agricultural Index, General Science Fulltext, MathSciNet, Medline (PubMed), Physics Journals from Institute of Physics Publishing, Plus Scifinder and Dialog