CHEM767
Chemical Information Retrieval

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Winter Term 2005
Office Hours: M 5:00-6:00 pm, W 6:00-7:00 pm
Fax: 215-895-1265

Class Meetings: M 6:00-7:20 pm
W 7:30-8:50 pm

Class Room: Hagerty Library L13
Electronic classroom in the basement

Course Objectives:
• to give students a basic grasp of the chemical literature and its derived electronic databases
• to develop insight into the cost and value of chemical information
• to develop proficiency in writing selective reviews of the chemical literature

Textbook: None required

Other References: (on reserve in the Hagerty Library):

List of Topics:
• Introduction to the Chemical Literature
• Electronic Resources available through Hagerty Library (guest lecturer, Peggy Dominy, Information Services Librarian for the Sciences, Hagerty Library)
• Essentials of database structure; developing and using your own bibliographic database; End Note
• Finding Chemical Information in Handbooks and Encyclopedias; indexing
• Searching the Print Version of Chemical Abstracts; indexing and fields
• Computer-Based Searching: Database Vendors and Search Strategies
• Focus on keywords: Searching Chemical Abstracts on-line with SciFinder Scholar
• Focus on Chemical Substances using SciFinder Scholar
• Citation Searching: ISI’s Web of Science
• A Bibliographic Example: Alan MacDiarmid’s Nobel Prize (guest lecturer, Peggy Dominy)
• Searching that involves molecular structures and chemical and physical properties of substances: the Beilstein database, NIST Webbook in Chemistry, CRC Handbook On-Line
• Patents
• Structure and substructure searching

Course Grading:
In-class assignments, quizzes and homework assignments, 40%
In-class final exam, 30%
Research paper, 30%
Research paper:

You must write a 10-12 page (single-spaced) paper on a research topic of your choosing but approved by myself. Use the bibliographic search techniques you learned in this course to prepare the cited reference list in your paper. This bibliography should include literature of the following types:

- a monograph and/or encyclopedia reference
- at least one review article
- conference proceedings, if relevant
- primary journal articles

You should include at least 20 references in your bibliography. You must submit either electronic copies of articles or the photocopied first pages of all references you use for the paper.

The format of this article should be that of a literature review rather than a primary journal publication. That is, there should be the following components of the paper:

- Title
- Author (you!), with affiliation
- Abstract (less than 100 words)
- Introduction
- The body of the paper: several sections, each with an appropriate topic heading
- Conclusion
- Annotated bibliography, prepared using End-Notes with the “Annotated” style.

Paper Deadlines:

Friday, January 28 (end of fourth week): submit on WebCT a one-to-two-paragraph description of the research topic on which you want to write your paper. I will e-mail you about the suitability of the topic.

Friday, February 18 (end of seventh week): submit on WebCT a section-by-section outline of the paper and a list of the articles (author, title, journal or source, year) you have found and read so far in your preparation.

Friday, March 4 (end of ninth week): Submit a draft of the paper in electronic form on WebCT. I will then set up a conference with you during the remainder of the term to review your draft.

Monday, March 14: Submit your final paper on WebCT.

WebCT:

We will be using WebCT (Drexel’s on-line course tool package) to enhance communication in CHEM767. The instructions below tell you how to log on and begin using WebCT.

1) Enter the Drexel WebCT web site at http://webct.drexel.edu or through DrexelOne.
2) Enter your university UserID and password on the UserName/Password dialog screen (note that they are both case sensitive).
3) If you enter these correctly you will now be at your MyWebCT Home Page in the WebCT area.
4) Select CHEM767 from the list of courses on the left side of the screen.
5) You will now be in the CHEM767 course area. Select the Bulletins icon to read posted messages, the Calendar icon for the course schedule, etc. All of your in-class and homework assignments will be posted on the Assignments page.

It is assumed that all students have a Drexel computer account for email and easy access to the Internet and to the Drexel University network.