

## Chemistry 385-386: Chemistry Junior Seminar, 2003-2004

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**DESCRIPTION:** This course is a two-semester course carrying one credit for the entire year and with a single grade for the entire year. In this seminar course, you will focus on three skills that are essential for scientists: information retrieval, reading and understanding articles from the chemical literature, and preparing and making effective oral presentations.

**GOALS:** To be successful in this course, the goals that you should work towards are:

1. to develop a basic knowledge of the various chemical journals and reference sources available and to become proficient in carrying out literature searches
2. to become engaged in reading articles from the chemical literature and to understand, and be able to discuss, salient features from these articles
3. to develop the ability to research, organize and make an effective oral presentation

**EVALUATION:** Your grade in this course will be derived from three components: your attendance and participation in the seminar sessions, a literature search assignment, and a brief oral presentation. These three items are worth 100 points each, and your grade in the course will be assigned according to the following scale:

<u>Grade</u>	<u>Total points</u>
A	270-300
B	240-269
C	210-239
D	165-209
F	below 165

Plus and minus assignments will be made within these ranges.

**POLICIES:** Your attendance at every meeting of seminar (both semesters including departmental seminars and senior seminar sessions indicated) is expected. In instances in which an absence is unavoidable, please contact me promptly. If you are unable to attend a class, all material discussed and assignments given are your responsibility. For each class missed, 5 points will be lost from your attendance/participation grade (up to 100 points).

**SEARCHING THE CHEMICAL LITERATURE:** The principal tool for literature searching that you will use is STN, an internet-based service that electronically searches a number of databases, including *Chemical Abstracts*, starting in about 1967. You will be shown how to locate and retrieve information from this electronic database as well as from the print version of *Chemical Abstracts*. You will carry out several individual searches, looking for specific articles and patents. You will be asked to complete a homework assignment (not graded) and then be given another assignment that will be due **October 13** and will be graded.

**READING THE CHEMICAL LITERATURE:** After you have mastered searching the chemical literature, we will read and discuss an article. The purpose of this is to introduce you to a critical reading of the scientific literature. After this class, we will join the senior seminar chemistry class in their discussion of articles from the scientific literature. The members of the senior seminar class are responsible for selection of the article and for leading its discussion. It is expected that you will read the article being discussed and participate in the subsequent discussion.

**BRIEF ORAL PRESENTATION:** You will develop a 15-minute oral presentation on a scientific topic of your choosing. You must select your topic and have it approved by **October 27**. In the presentation, you must exhibit an understanding of the subject and must make the topic understandable to your fellow students.

Your presentation will be evaluated on the scientific content, organization of the topic, clarity of presentation, and your apparent knowledge of the topic. The weight of each of these in determining your final grade on this assignment is indicated below.

Content of presentation (accuracy, completeness, appropriate level)	30%
Organization of topic	20%
Presentation (visual aids)	15%
Presentation (verbal)	15%
Command of subject (presentation and answers to questions)	20%

**SCHEDULE:** For the fall semester, we will meet on the following dates. The spring schedule will be issued at a later point.

September 8	Introduction: Overview of the Chemical Literature
September 15	Searching the chemical literature (hardcopy and online databases)
September 22	Open
September 29	Reading the literature / <b>Literature search homework due</b>
October 6	Senior seminar student led discussion
October 13	Senior seminar student led discussion / <b>Literature search assignment due</b>
October 20	Fall Break
October 27	Oral Presentations: <b>Deadline for brief oral presentation topic approval</b>
November 3	Merck Lecture: Dr. David Pasco, Center for Natural Products Research, University of Mississippi
November 10	Brief Oral Presentations
November 17	Open
November 24	Brief Oral Presentations
December 1	Brief Oral Presentations
December 8	Departmental Seminar: Dr. Robert Mebane, Department of Chemistry, University of Tennessee, Chattanooga