

Chemistry 7010

Descriptive Inorganic Chemistry
 Fall 2008
 1:55-2:50 p.m. MWF
 0123 STAT

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TENTATIVE LECTURE SCHEDULE (EXAM DATES ARE FIRM)

Subject	Week	Greenwood Chapter	Subject	Week	Gopen Chapter
Basics of Chemical Bonding	1-3	1,2	Action	1	2,3
Hydrogen, Group 1, Group 2	4	3-5	Whose Story?	2	2,3
Boron, Group 13	5	6,7	Stress Position	3	2,3
Carbon, Group 14	6	8-10	Artificial Emphasis and Backward Links	4	3
Nitrogen, Group 15	7	11-13	Topic Changing	5	3
Oxygen, Group 16	7	14-16	Topic Stringing	6	3
Group 17	8	17	Flow from Sentence to Sentence	7	3
Group 18	8	18	Paragraph Issues	8	4
Group 12	9	29	Paragraph Points	9	4
Coordination Chemistry	9-10	19	Paragraph Connections	10	4
1st Row Transition Metals	11-12	20-28	Bad Advice	11	5
2nd and 3rd Row Transition Metals	13-14		Punctuation Part 1: :, ;, -, --, ---, (), [].	12	Part 2
Lanthanides, Actinides	15	30, 31	Punctuation Part 2: !, ?, ', ..., ..	13	Part 2

Abstract Due Dates (All Monday): September 22, 29; October 20; November 3, 10, 17, 24

Midterm Exam: Friday, October 17, in class

Final Exam: Friday, December 12, 1:20-3:50 p.m.

Interview Project: 1st draft (5 copies) due Friday, October 3, in class

Comments due Friday, October 31, in class

2nd draft (3 copies) due Friday, November 7, in class

Comments due Friday, November 21, in class

Final draft (2 copies) due Friday, December 5, in class

GOALS: There are two primary goals for this course: (1) To obtain a broad foundation of knowledge necessary for pursuing research in inorganic chemistry and (2) to develop writing and critical reading skills necessary for pursuing research in inorganic chemistry.

PREREQUISITE: CHM 5020 or equivalent.

REQUIRED TEXTS: Greenwood and Earnshaw *Chemistry of the Elements, Second Edition* and Gopen *The Sense of Structure: Writing from the Reader's Perspective*, available in the bookstore.

COMMUNICATION: E-mail correspondence sent to Professor Allen must contain "CHM 7010" in the subject line.

OFFICE HOURS: Monday 8:30-9:30 AM or by appointment.

GRADING: The midterm exam is worth 100 points. Combined writing assignments (7 abstracts, 2 page interview paper, and peer involvement) are worth 100 points. The Final exam is worth 200 points. No make-up exams will be given, and no late assignments will be accepted. If you must miss an exam for an emergency, speak with me as far in advance as possible.

PARTICIPATION IN CLASSROOM DISCUSSION: Participate! Ask questions! I will assign up to 25 points of “Classroom Discussion” credit at the end of the semester.

PLAGIARISM: Plagiarism will not be tolerated and will result in a failing grade on the assignment for the first offense and a failing grade in the course for the second offense.

GUIDELINES FOR WRITING AN ABSTRACT FOR A SCIENTIFIC PAPER:

(Summarized from *The ACS Style Guide, Third Edition*, American Chemical Society: Washington, DC, 2006, 21-22.)

1. The purpose of an abstract is to allow the reader to determine the nature and scope of the research paper.
2. The abstract must be concise, self-contained and complete enough to appear separate from the publication.
3. For a research paper:
 - a. Briefly state the research topic, problem, or purpose of the research; to do this, you must comprehend the “big picture”
 - b. Indicate the theoretical or experimental plan used
 - c. Summarize the principle findings
 - d. Points out the major conclusions or implications
4. For a review paper, the abstract should identify the topic, the scope, the sources reviewed and the conclusions.
5. The optimal length for an abstract is one paragraph, but it may be as short as two sentences. The length will depend on the subject matter and the length of the paper, but 80-200 words is usually adequate.
6. Do not cite references, tables, figures, or sections of the paper in the abstract. Do not include equations, schemes, or structures that require display on a line separate from the text.
7. Use abbreviations and acronyms only when it is necessary to prevent awkward construction or needless repetition. Define abbreviations at first use in the abstract (and again at first use in the text).

INTERVIEW PROJECT: This project will consist of brief report (1500-2000 words) of the use of elements by research groups in the department. You will be randomly assigned a faculty member and a group of elements, and you will write a description of the use of your assigned elements in the research group. The information for your report should be acquired through reading papers from the group, interviewing the faculty member, and interviewing group members.

Two rounds of peer-review will be performed prior to the final due date. You will receive specific instructions for peer-reviewing in class. Grades will be assigned based on the quality of the final reports (60%) as well as the quality of your reviews of the reports of your classmates (40%).