

# Chemistry 7010

Descriptive Inorganic Chemistry  
Fall 2010  
6:30–9:30 p.m. Monday  
0168 Old Main

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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	Punctuation Part 1: :, ::, -, —, ( ), [ ].	1	Part 2
Hydrogen, Group 1, Group 2	4	3–5	Punctuation Part 2: !, ?, ', ..., ,, ,.	2	Part 2
Boron, Group 13	5	6,7	Action	3	2,3
Carbon, Group 14	6	8–10	Whose Story?	4	2,3
Nitrogen, Group 15	7	11–13	Stress Position	5	2,3
Oxygen, Group 16	7	14–16	Artificial Emphasis and Backward Links	6	3
Group 17	8	17	Topic Changing	7	3
Group 18	8	18	Topic Stringing	8	3
Group 12	9	29	Flow from Sentence to Sentence	9	3
Coordination Chemistry	9–10	19	Paragraph Issues	10	4
Transition Metals	11–13	20–28	Paragraph Points	11	4
Lanthanides, Actinides	14	30, 31	Paragraph Connections	12	4

**Abstract Due Dates:** September 20, 27; October 18; November 1, 29

**Midterm Exams:** In Class, October 4, 6:30 p.m. Room 0168 Old Main  
Take Home, Due November 22, 6:30 p.m.

**Final Exam:** December 20, 6:30 p.m.–9:30 p.m. Room 0168 Old Main

**Interview Project:** 1st draft (5 copies) due October 11, in class  
Comments due October 25, in class  
2nd draft (3 copies) due November 8, in class  
Comments due November 22, in class  
Final draft (2 copies) due December 6, 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:** Walk in or by appointment.

**GRADING:** The two midterm exams are worth 100 points each. Combined writing assignments (5 abstracts (4 points each), interview paper (48 points), and peer review (32 points)) 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. Yes, this is real.

**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. All abstracts and final papers must be submitted as Word documents into Blackboard before the start of class on the due date. I will use SafeAssign to check for plagiarism.

**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. Point 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).
8. **All abstracts must be typed.**

**INTERVIEW PROJECT:** This project will consist of brief report (1000 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%).

Specific Guidelines for Papers: Use Times New Roman (12 point) font. Use 1 inch margins all around. Double space the document, and include at least one figure per page. References should be formatted according to the guidelines in the *ACS Style Guide*.

**No internet sources are allowed as references.**