

CHE 776-002
Inorganic Chemistry Seminar

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Office hours by appointment

When: 12 – 1 PM Fridays
Where: 137 Chemistry-Physics

1. Course Description

During this course you will discuss and evaluate current topics in inorganic chemistry. You will discuss current literature through article reviews and a formal presentation. The formal presentation (40-45 min.) must be of interest to the inorganic chemistry community and will be evaluated by your peers and the Inorganic Chemistry faculty. Participation will also be an integral part of this course. This course may be repeated a total of eight times for credit (1 credit hour). *The instructor is solely responsible for assigning final grades.*

2. Grading

You will be expected to attend each session, except for those students that are not currently taking Cumulative exams (Cume review days only), or by special permission (e.g. attending a conference). Occasionally, outside speakers (Departmental, ACS visitors, UK Faculty, or postdoctoral associates) will present research that is currently underway within their respective laboratories.

Attendance and participation are mandatory. If registered for credit, you may have *only one unexcused absence*. Excused absences must be approved by the instructor. Each additional unexcused absence will lower your grade by one letter. Students auditing a class must attend at least 80% of the course or a “W” grade will be awarded. Grading will consist of a seminar (80%), abstract (10%), and literature presentations (10%). Scoring of presentations and abstracts will be determined by the point system described on page six and letter grades will be assigned using these calculated points below.

Abstract = 10%	A: 90 and above
Seminar = 80%	B: 80 – 89
Literature Review = 10%	C: 70 – 79
	E: < 70

3. Literature Review, Discussion, and Seminar

All registered students in CHE 776 are expected to prepare and discuss the content and scientific merit of a communication or article at least once during the semester. Review articles are not allowed. The article chosen for discussion must be

sent via electronic means (article.pdf) to the instructor's email address by Thursday (noon), eight days before your presentation date. This will ensure that your article title and text reference will appear in Chem. News. on time. Powerpoint and/or overhead slides are required for your literature review. *Presentations using the chalkboard will not be allowed since each student is allotted 10-15 minutes.* In class the week prior to your presentation, tell the instructor what audiovisual equipment will be required. During the presentation, you are expected to briefly discuss the background of the topic, significance of the author's work, problems that were addressed and solved (e.g. via spectroscopy, kinetics, etc.), and why the article is interesting in your opinion. In other words, you are required to critically review the research and discuss it. *If you believe the article is routine and cannot defend its content then do not discuss it.*

No articles related to your research group or thesis project (present or past) are allowed. This is intended to expand your interests and "inorganic chemistry horizons". Journals that routinely discuss inorganic chemistry in detail include: *J. Am. Chem. Soc., Inorg. Chem., Organometallics, Dalton Trans., Angew. Chem. Intl. Ed., Chem. Mater., Adv. Mater., Chem. Commun., and J. Chem. Soc.* This list is by no means excludes other journals.

Each student enrolled for credit will also prepare and present a formal seminar that is relevant to current inorganic chemistry research, is not related to his/her group's or own research (present or past), is coherent, and demonstrates command of the material presented. Students auditing the course will be required to operate a video camera during the presentation. Each student seminar will describe a body of recent (< 5 years old) research developments that address current issues or problems in inorganic chemistry. *An acceptable seminar (see below) must compare and contrast the published results of several authors.*

4. Seminar Requirements and Guidelines

- (1) A tentative research topic with four references must be submitted by Friday January 27, 2006.
- (2) Significant changes to the research topic must be approved by the instructor at least three weeks prior to the seminar date.
- (3) *An exact seminar title and abstract must be approved and submitted at least two weeks prior to the seminar date by the instructor.* Both electronic (PDF format) and hardcopy versions of the abstract must be submitted to the instructor. Once approved the seminar title and abstract will be distributed via e-mail in Chem. News. This action ensures that both the abstract and title will correctly appear and describe the seminar. *Failure to follow these guidelines will decrease your grade by at least one-half letter.*

Plagiarism is not allowed. If unsure what constitutes plagiarism and what the consequences are, see the *Students Rights and Responsibilities Manual*.

The abstract must include: the approved title, presenter name, seminar date, time (12-1 PM), section (CHE 776-002), location (CP-137), references (with titles, beginning/final page), and summarize the seminar content presented. The abstract must also describe the importance, background, recent results, summary, and contain pertinent references with titles (*J. Am. Chem. Soc.* format). The abstract page and references page(s) must be submitted and approved by the instructor by *noon on the Friday two weeks prior to the Friday seminar date.*

- (4) PowerPoint presentations only allowed. These are the preferred medium in academic and industrial arenas. For more information see the instructor.
- (5) The seminar must be 40-45 minutes in duration. *Seminars less than this will result in one-half letter grade reduction of total score.*
- (6) Text font size must be at least 18 point (Times New Roman is preferred) so that your audience can read the overhead, slide, or PowerPoint panel from a distance of at least 30 feet. If you cannot easily read the text or figures on your slide, your audience certainly cannot. Well-chosen, consistent fonts and sizes will help maintain audience interest in your seminar and leave a favorable impression.
- (7) Titles for each overhead or slide must be present, preferably in large (e.g. 24 point or greater) and boldface font. Each title should summarize the slide content. Once again, readability and audience understanding is the goal.
- (8) *Figures, schemes, or images may not be photocopied or scanned from articles.* Most can be altered or reproduced via standard audiovisual means (e.g. ChemDraw, Photoshop, Word, or ChemWindow). If unsure ask the instructor. Each figure must be large, legible, and neatly appear on the transparency or slide. For example, the figure or text must be clearly visible at least 30 feet from the screen. Appropriate figures maintain audience interest and assist in their understanding of the seminar presentation.
- (9) Each slide must reference the original authors and article when appropriate. *No review articles or scanned/photo-copied images, schemes, or figures are allowed.* Review articles omit many of the details that your audience may ask about later. This important information (synthesis, characterization, yield, etc.) is often only described in the original article(s).
- (10) When describing a compound use a proper IUPAC name whenever possible. If the IUPAC name is rather large, define a common name early in the presentation and refer to it throughout the seminar. Figures of compounds are often quite effective and maintain audience interest in your seminar.

- (11) Try to average about 1.5 or 2 minutes for each slide as a general rule. This will allow the audience to absorb the slide content, maintain interest, and direct questioning later.
- (12) It is very important what you put on your overheads/slides. Do not use notes during your presentation, since all important information should be on your slides. *Use of notes detracts from the seminar presentation experience and is not allowed.* Good speakers also anticipate questions that the audience might ask and often keep a few slides in reserve, to answer these questions. *Remember that you are telling a story to the audience in a convincing manner.*
- (13) Practice in front of a mirror several times prior to the seminar date. This will allow you to gauge the length of the seminar and expose problematic portions of the presentation in advance of the actual seminar date. Difficulty explaining concepts, rough transitions, or distracting mannerisms can be recognized and corrected in advance of the seminar date. Next, practice in front of other group members or friends and ask them to critically review your presentation; make changes accordingly. Extemporaneous speaking is the preferred and most flexible method of presenting scientific material. Remember, this is practice for your oral exam, exit exam, and life after graduate school (the real world).
- (14) All seminars will be videotaped and individual conferences will be held. You are required to view your presentation (your own VCR or departmental one, CP-133) and evaluate yourself using the evaluation form within one week of your seminar. You will also meet with the instructor, discuss your seminar, and return the videotape prior to the following class period.
- (15) If you know your slides and the literature well, you will be able to effectively describe your topic, maintain audience interest, answer questions effectively, remain relaxed during your presentation, and impart a favorable impression upon your audience.

5. CHE 776-002 Evaluation Form and Grading

I. SEMINAR

CONTENT:

1. Comprehension of Material (20) _____
2. Coverage of Topic (15) _____
3. Definition of terms and Concepts (5) _____
4. Organization and transitions between ideas (10) _____

PRESENTATION

5. Mannerisms
 - a. Audience interaction, eye contact (5) _____
 - b. Confidence, enthusiasm (10) _____
 - c. Enunciation, volume, absence of slang terms (10) _____
 - d. Command/handling of questions (10) _____

VISUAL AIDS

6. Readability (5) _____
7. Effectiveness (5) _____

TIMING

8. Appropriate length (at least 30 minutes) (5) _____

SEMINAR TOTAL _____ x 0.8 = _____

II. ABSTRACT

1. Informative content (50) _____
2. Format, reference style, spelling, grammar, on time (50) _____

ABSTRACT TOTAL _____ x 0.1 = _____

III. LITERATURE PRESENTATION

CONTENT:

1. Comprehension of Material (20) _____
2. Coverage of Topic (15) _____
3. Definition of terms and Concepts (5) _____
4. Organization and transitions between ideas (10) _____

PRESENTATION

5. Mannerisms
 - a. Audience interaction, eye contact (5) _____
 - b. Confidence, enthusiasm (10) _____
 - c. Enunciation, volume, absence of slang terms (10) _____
 - d. Command/handling of questions (10) _____

VISUAL AIDS

6. Readability (5) _____
7. Effectiveness (5) _____

TIMING

8. Appropriate length (at least 10 minutes) (5) _____

LITERATURE PRESENTATION TOTAL _____ x 0.1 = _____

COURSE GRADE

(Literature grade + Seminar grade + Abstract grade) _____