

SYLLABUS

Course: **CH 370.2 Senior Seminar in Chemistry**

Semester: Spring, 2006

Professor: **Carl Salter** CHS 228

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Course Objectives:

To prepare you to speak in front of an audience on chemical subjects.

Assignments and Tentative Schedule:

Jan 16 Distribute evaluation sheets, schedule, define rapporteur,
Piaget's theory of learning, Bloom's taxonomy, Perry stages of cognition.

Friday, Jan 20 Select *J Chem Ed* papers.

Jan 23 Discussion of J.F. Bunnett *J. Chem. Ed.* **1995**, 72, pg 1119, and Beall &
Trimbur, Chapter 9.
Review evaluation form, rapporteur report.

Jan 30 Student talks from J Chem Ed -- demonstrations okay! 15 min. Written outline. Only 2 transparencies!

Feb 6 Turn in rapporteur report, evaluation conference, discuss article assigned by Y. Gindt.

Feb 13 **Prof. Yvonne Gindt, Lafayette College**

Title *Real Applications to the 'Particle in the Box' Situation: A Novel Protein to Study Protein-Protein Interactions*

Assigned Paper: M.S. Gittelman and C.R. Matthews "Folding and Stability of the *trp* Aporepressor from *Escherichia coli*"
Biochemistry **29**, 7011-7020.

Friday, February 17 Select *Accounts of Chemical Research* paper

Feb 20 Open

Feb 27 **Student talks and written summary, Accounts of Chemical Research. 15 min. Written outline.**

March 6 No class--Spring Break

March 13 Turn in rapporteur report, evaluation conference, discuss article assigned by P. Seybold.

Friday, March 17 Select papers from ACS Journal, written summary including two references

March 20 **Prof. Paul Seybold, Wright State University**

Title: *Modeling Complex Systems Using Cellular Automata*

Assigned Paper: P.G. Seybold, L.B. Kier, C-K Cheng, "Simulation of First-Order Chemical Kinetics Using Cellular Automata",

J. Chem. Inf. Comput. Sci., **1997**, *37*, 386-391.

March 27 ACS Meeting in Atlanta. Discuss article assigned by M. Pearsall.

April 3 **Prof Mary-Ann Pearsall, Drew University**

Title

Assigned Paper

April 10 Open

April 17 No Class--Day after Easter

April 24 Student talks and written summary on a paper from an ACS Journal. 30 min. Written outline.

Evaluation:

Written Summaries	15%
Evaluation and Rapporteur reports	15%
Two 15 minute talks	40%
30 minute talk	30%

Papers selected for student presentations must be no more than "one year old"; that is, they must have been published after January, 2005. The final 30-minute talk must be based on a paper from either *J Amer Chem Soc* or the ACS publication that is the premiere journal of the subdiscipline, for example, *Inorganic Chem* or *J Org Chem*. Some non-ACS publications that have historical significance can be used, such as *J Chem Phys* and *J Biological Chemistry*.

Responsibilities: Each member of the audience must come to the seminar room with enough evaluation forms for all talks. The first page of the evaluation form must be initialed and dated.

With every talk the speaker must distribute to each member of the audience a written outline that includes the title of the talk, date of the talk, name of the speaker, and journal article (author, title, and citation). The outline will also indicate how the speaker used ideas about learning (Piagetian learning/Perry's levels/Bloom's taxonomy) in preparing the talk. (For the second and third talks one copy of a written summary of the article must be also submitted.) The speaker is responsible for arranging all audiovisual materials and hand outs. The speaker must plan the talk to fit the allotted time; talks that are too long or too short will receive lower evaluations! After the allotted time for the talk there will be a brief question and answer period. Then the speaker and the professor

will leave the room.

An envelope bearing the speaker's name will contain the name of **the rapporteur**. The primary job of the rapporteur is to gather the evaluations of the audience and write the **rapporteur report**, which is a summary of comments, criticisms, and suggestions for the speaker. After the rapporteur is identified, the rapporteur will lead a discussion of the talk, roughly five minutes long, going over the items in the evaluation form. The audience members may write new comments on the form based on the discussions.

When the rapporteur is satisfied, he or she gathers the evaluation forms (and written summary) and places them in the envelope. **The next speaker** summons the professor and speaker to return to the room.

The rapporteur should evaluate the content and presentation of the talk, its appropriateness for the audience, how well it reflected the material in the article, and how well the speaker followed the outline in giving the talk. The report should include suggestions for future talks. The rapporteur report should be one-page long, single-spaced; it must include the name of the speaker, the title of the talk, and the date of the talk--it must **NOT** contain the name of the rapporteur.

One week after the talk the rapporteur submits **two copies of the report**. The rapporteur meets for roughly ten minutes with the professor to discuss the rapporteur report. The rapporteur returns the written evaluations and summary. After the meeting with the rapporteur, the professor meets with the speaker for roughly ten minutes to present the speaker with his or her copy of the rapporteur report; they review the report and evaluate the talk. The professor retains one copy of the rapporteur report and either an outline or summary for his records. The professor returns to each audience member the first page of the evaluation form.

Variations: For outside speakers a rapporteur team will be appointed to write the rapporteur report. The seminar students will meet briefly following the talk to review the evaluation, and the team will collect the forms. At the next class meeting the rapporteur report will be read and discussed.