



Writing for Chemists – CHEM 360

CLASS SYLLABUS – Spring 2007

Instructor: Dr. Grady Hanrahan, Phone (323) 343-2365, email:
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Office Hours: Dr. Hanrahan: P.S. 807 M, W, F 11:00am -12:00pm, TH 1:00pm – 2pm or
by appointment.

Hugh Bonar, MBRS Writing Tutor: M 10:00-3:00, T, W, TH 12:00-6:00
and F 10:00-3:00.

Lecture: M,W, F 9:30-10:20 am, P.S. 607

Course Description:

CHEM 360 is a course providing introduction to writing for chemists and biochemists providing extensive practice in writing abstracts, reports, reviews, research papers and other forms of scientific writing. It also provided instruction for oral presentations and literature searches.

Course Objectives:

The main objective of Chemistry 360 is to develop students' understanding of the principles of scientific writing. More detailed objectives include:

- To learn how to search current literature;
- To learn effective scientific writing skills;
- To learn how to effectively communicate and convey results during oral and poster presentations.

Required Textbook: *Write Like a Chemist*, M. Robinson, et al., 2006, Xerox available only at the University Bookstore.

The ACS Style Guide, A Manual for Authors and Editors, 2nd Ed.,
J.S. Dodd, Ed. ACS, 1997.

Class Handouts: Detailed handouts on various topics will be provided by the instructor.

Class Website: <http://www.calstatela.edu/dept/chem/class-notes.htm>

Lecture presentation style: Overheads, PP, chalk board, handout practice sheets, group evaluations.

Tentative Lecture Schedule: Spring 2007

| <u>Dates</u> | <u>Subject</u> | <u>Reading/Homework Assignment</u> |
|--------------|---|--|
| 03/26 | Introduction to CHEM 360 | |
| 03/28 | Chemical Literature, Citations | ACS pp. 173-229 WLC Ch. 16: pp.1-19 Handout – Research Paper Handout – Research Topic |
| 03/30 | No Class – Cesar Chavez Day | |
| 04/02 | Target Reading – Dr. Krishna Foster | TBA |
| 04/04 | Critical Reading – Dr. Krishna Foster | TBA |
| 04/06 | Analysis of Writing Topic Selection Due Today, Quiz 1 - Target and Critical Reading | WLC Ch. 1 WLC Problems 1.1-1.3 |
| 04/09 | Overview of the Journal Article Database Search Due Today | WLC Ch. 2, 1-3 and 10-16 ACS pp. 17-25 |
| 04/11 | Style and Concise Writing | WLC Ch.2 4-9 Appendix A WLC Problems 2.1, 2.6 |

Tentative Lecture Schedule: Spring 2007

Note: dates subject to change

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|-------|--|--|
| 04/13 | Experimental Section | WLC, Ch. 3 pp. 1-32 WLC, Ch. 15 pp. 1-14 ACS pp. 107-170 WLC Problems 3.1-3.2 |
| 04/16 | Library Information Literacy - Dr. Ken Ryan and Catherine Haras | Meet in Library |
| 04/18 | Experimental Section #2 | WLC, Ch. 15 pp. 1-14 ACS, pp. 107-170 WLC Problem 15.2 |
| 04/20 | Results Section Quiz 2 – Experimental Section | WLC, Ch. 4 pp. 1-18 ACS, pp. 1-17 |
| 04/23 | Results Section #2 | WLC, Ch. 4 pp. 18-39 ACS, pp. 249-279 WLC Problems 4.1, 4.2, 4.5 |
| 04/25 | Poster Presentations – Dr. Scott Nickolaisen | |
| 04/27 | Group Peer Evaluation of Experimental Section Quiz 3 – Results Section | |
| 04/30 | Discussion Section Experimental Section Due Today | WLC, Ch. 5 pp. 1-18 |
| 05/02 | Discussion Section #2 Group Peer Evaluation of Results Section Poster Evaluation Due Today (individual) | WLC, Ch. 5 pp 19-28 WLC Problems 5.1, 5.9 |
| 05/04 | Introduction Section Quiz 4- Discussion Section Results Section Due Today | WLC, Ch 6 pp 1-20 |

Tentative Lecture Schedule: Spring 2007

Note: dates subject to change

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|-------|---|---|
| 05/07 | Introduction Section #2 | WLC, Ch. 6 pp 20-37 WLC Problems 6.2, 6.10 |
| 05/09 | Oral Presentations – Dr. Linda Tunsted | TBA |
| 05/11 | Group Peer Evaluation of Discussion Section Quiz 5 – Introduction Section | |
| 05/14 | Abstract Discussion Section Due Today | WLC, Ch. 7 pp 1-18 |
| 05/16 | Group Peer Evaluation of Abstract and Introduction Sections | |
| 05/18 | Title and Resumé | WLC, Ch. 7 pp 9-13 WLC Problems 7.1, 7.8 |
| 05/21 | Proofreading and Editing Abstract & Introduction Sections Due Today | WLC, Ch. 17 pp 1-17 |
| 05/23 | Group Peer Evaluation of Title and Resume | |
| 05/25 | Ethics in Science Resume Due Today | Handout |
| 05/28 | No Class – Memorial Day | |
| 05/30 | Ethics in Science Group Peer Evaluation of Final Drafts | Video, Handout |
| 06/01 | Review for Final Exam Final Paper Due Today | |
| 06/06 | Final Exam – 8:00 – 10:50 am | |

Grading Policy

Grades will be assigned as traditional (A, B, C, D, & F) and based on points accumulated. However, class attendance, distribution of points and individual participation will be taken into consideration on final grades. Makeup quizzes will be given at the discretion of the instructor in cases of family emergencies and illness (with doctors excuse) only. Otherwise, a weighted average of other quizzes will be given. Students must turn in the Final Research paper and take the Final Exam or an automatic “F” will be given.

The grading scale is as follows:

| | |
|---|---------|
| A | 100-90% |
| B | 89-78% |
| C | 77-66% |
| D | 65-54% |
| F | 55-0% |

The point breakdown is:

Database Search = 10 points

Quizzes (5 x 10pts) = 50 points

Paper sections and Resume assignments (5 x 20 pts) = 100 points

Group Peer Evaluations (6 x 5 pts) = 30 points

Individual Poster Evaluation = 20 points

Final Paper = 100 points

Final Exam = 50 points

Dropping the course/Incompletes

Hopefully, a student will not be dropping this course. However, in the event that this is necessary the student must meet all university rules and deadlines. In the case of an incomplete, the student must be making a (C) in the course and the reason for the incomplete an illness or an accident. An INCOMPLETE GRADE REPORT form must be completed and given to the instructor by the end of the examination week.

Assigned Work and Class Arrangement

Students will be divided into study groups of 4-5 students and participate in group peer evaluations throughout the quarter. There will be no outside of class group assignments. This is a writing class, thus writing assignments are an integral part of the course makeup. Students will be required to turn in individual paper sections (drafts) and a resume for grading (after peer review by your group). These (sections) will later be combined to formalize your research paper (see below for details). **Late drafts,**

databases search, poster evaluation and resume will receive a point off for each day late past the due date. Students will also be required to read the assigned material as quizzes will be based on this content (including lecture material and problem sets). You will also need to individually evaluate a research poster. You can choose posters in the Biological Sciences, Chemistry & Biochemistry and Physics Departments. Your Final Exam will consist of questions that are directly related to your reading assignments and WLC problem sets assigned.

A large part of your grade in CHEM 360 is the Final Research Paper. You will need to decide on which of three canned research projects you will use. I will make a list available on the first day of class with project data available on the class website. You will build this paper from the drafts that you will turn in for each section. It is imperative that you consider the comments from the peer review and my comments after grading them. The Final Paper must be prepared using a computer word processing system, 6-12 pages (with page numbers) in length, proper referencing and double spaced in 12-point font. A chemical formula drawing program may be helpful (see Chemistry computer lab on 7th floor). Your paper will contain the following sections:

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|-------------------------|----------------------------|---------------|
| 1. Title | 5. Methods or Experimental | 9. References |
| 2. Name and Affiliation | 6. Results | |
| 3. Abstract | 7. Discussion | |
| 4. Introduction | 8. Acknowledgements | |

Writing and Plagiarism

Plagiarism is a direct violation of intellectual and academic honesty and is against university policy. I will go over the rules of plagiarism on the first day of class. Please also review the University's policy on academic honesty at:
http://www.calstatela.edu/univ/stuaffrs/Academic_Honesty.htm.