Chemistry 100: Fall 2000: Chemistry is Everywhere

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Course Meetings: Tu-Th 2:15-4:05 am
Science 2022

Course Philosophy

In this course we will discuss the important principles of chemistry in the context of the world around us. No prior experience with chemistry is required, however it is hoped (and encouraged) that you will bring with you knowledge from your other classes relevant to issues discussed in this classroom. This class will utilize a variety of teaching styles, including lecture, discussion, debate, and in-class problem solving, as well as some laboratory explorations. The goal of this course is to give you an understanding of the scientific method and the role chemistry plays in your understanding of critical social issues. Class attendance and participation is required. Some use of technology and web resources out of class will also be expected. Some exploration of special topics selected by the class is possible.

Texts and Other Resources:

Required Text: Chemistry in Context, 3rd ed A project of the American Chemical Society (ACS). Available at the bookstore.

Course Web Page: This will contain copies of problem sets, and handouts and lecture summaries as well as useful external links. You can connect via the chemistry department page or the library list of class pages. The address is:
http://www.grinnell.edu/courses/chm/F00/chm100-01/

Office Hours:

I do not schedule formal office hours. I am available to meet with you for individual help whenever you feel you need it. Appointments are generally available within 24 hours by e-mail and I am free for drop-in visits whenever my door is open. A copy of my fall schedule is available on the course web site.

Examinations:

There will be 2 in class examinations (see schedule). The examinations will consist of a mix of multiple choice, and short and long answer questions. I will hold a review session prior to each examination.
Assignments:

**Collaboration Policy:** You are encouraged to work on assignments in groups and to consult with me unless otherwise explicitly stated. You may want to organize a small study group (3-4) among your dorm mates or classmates. The work you turn in, however, should reflect your own effort and be your own work. You must also remember that the majority of your grade will be determined by your ability to solve problems on your own during exams.

**Reading:** Reading assignments will be passed out on a weekly basis. You should familiarize yourself with the reading and material prior to coming to class.

**Problem Sets:** Homework will generally be passed out on Tuesday and due the following Tuesday in class, except in examination weeks. All problem sets are equally weighted unless otherwise noted. Your lowest score will be dropped. Late homework is not acceptable.

**Other In and Out of class exercises:** In addition to problem sets you will occasionally work on other problems and explorations in class or be asked to prepare something prior to class. This work will be collected and graded (check, check plus/minus) and will be part of the basis for your participation grade.

**Final Paper and Oral Presentation:** You will be expected to give a presentation and write a final paper on a topic of your choice. These will be organized so that a group of students chooses a topic and each student in the group will give an oral presentation and write a paper on a special aspect of this topic. The topic and paper should be relevant to the course (i.e. discuss important principles of chemistry in the context of the world around us). For example the topic of “Art” could include presentations on glazes, paint pigments, analytical analysis of painting, all of which intimately involve chemical principles. The oral presentation and paper replace the final exam. The paper is due the class period following your presentation. Late papers are not acceptable. More information will be handed out later in the semester, however you should be thinking about possible topics as we progress through the class.

**Grading**

Grading will be based on the following breakdown.

- 2 exams (40%)
- Problem Sets and Participation (20%)
- Final paper (25%)
- Presentation (15%)

The following is a guideline of how grades will be determined. This will allow you to estimate your performance in the course.
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