

Chemistry 1210

Spring Semester 2019

- TEXT:** Tro, "Chemistry, Structure and Properties", 2nd Ed., plus Pearson's Mastering Chemistry and Learning Catalytics Packages. These are best purchased together, as will be discussed in our first class. Also required are the lecture notes, which will be available at the bookstore, most likely in the first week of classes.
- CLASS:** Lecture: MWF 11:50 am–12:40 pm, 2008 HEB
Discussions: Begin the first week of classes
Laboratory: The labs (Chem 1215) are handled independently
- INSTRUCTOR:** Professor Richard D. Ernst
Office: HEB 2166 (581-8639)
Consultation Hours: 12:40 – 1:30 pm (MWF) or by appointment or when available; ernst@chem.utah.edu (**do not send messages via canvas**)
- MIDTERM EXAMS:** **Dates for the exams will be decided and announced in class.**
- FINAL EXAM:** Wednesday, May 1: 3:30–5:30 pm (special Department-wide arrangement)
- WITHDRAWAL:** Last day to add w/o a permission code or to wait list: Friday, January 11, 2019; Last day to add, drop (delete), elect CR/NC option, or to audit: Friday, January 18, 2019. Last day to withdraw: Friday, March 8, 2019. Last day to reverse CR/NC option: Friday, April 19, 2019.
- EXAMINATIONS:** **NO PROGRAMMABLE CALCULATORS MAY BE BROUGHT TO ANY EXAM.** A grade of 0 will be given in such a situation, and **this Exam score may not be dropped.** An inexpensive, simple calculator (including logs) should either be purchased or borrowed (roommate, etc.), and the student familiarized with its operation prior to the exam. TI-30 calculators are ideal for this class. If you are unsure about your calculator's suitability, you need to check with Dr. Ernst **prior** to the given exam date. Dictionaries, electronic or hardcopy, are also not allowed, and their use will be dealt with as would the use of programmable calculators. Any notes in pockets or otherwise accessible locations will also be regarded as an attempt to cheat. Baseball caps must be worn backwards at exams, no listening or texting devices are allowed, and students must not use other desks for their work. Requests for regrading must be made to RDE within one week of the date the exams were returned. The rationale for receiving more credit must be given in writing. Examinations not picked up within two weeks of the date they were given are subject to disposal. Any exam problems must show the work involved in all steps of the solution for credit to be given. Students must keep their exams until final grades are posted.

MISSED EXAMS: Except for official University activities, or in the event of appropriate serious and unforeseeable circumstance, no make-up exams will be given, but one exam grade will be dropped or may be missed for **sickness, outside activities, or personal reasons**. Special consideration can not be given to anyone making travel arrangements for personal purposes, should there be a conflict with an exam. In the event of an unavoidable problem for a second missed exam, a written excuse with documentation (doctor's letter, obituary announcement, etc.) is necessary to **try to** avoid an exam grade of 0. **If at all possible** notification **must** be made prior to the time of the exam, as otherwise a grade of 0 will be assigned. **Students are expected to be aware of any announcements made in class, and are responsible for any information sent via campus e-mail.** As a matter of fairness, questions about material to be covered on exams will only be answered in class. Except in some unforeseen circumstances, a decision to travel home early can not be the basis for taking an exam, including the final, early or late.

ACADEMIC DISHONESTY: **Any** incident of academic dishonesty could result in a grade of E. By submitting an assignment, you are representing that it is your own work and that you have followed the rules associated with the assignment. Incidents of academic misconduct (such as cheating, plagiarizing, misrepresenting one's work, and/or inappropriately collaborating on an assignment) will be dealt with severely, in accordance with the Student Code (<http://www.admin.utah.edu/ppmanual/8/8-10.html>). A single instance of academic misconduct may result in a failing grade for the course. Multiple instances of academic misconduct may result in probation, suspension or dismissal from a program, suspension or dismissal from the University, and/or revocation of a degree or certificate.

GRADING:	Best 2 of 3 Exams	150 points (75 points each)
	Final Exam	100 points
	Homework and Pop Quizzes	100 points (possibly)
	Discussion	50 points
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	Total	400 points (← 1 Midterm Exam score dropped)

Due to a change in textbook and electronic learning systems, the above grading scheme may be modified to some extent. This issue will be discussed in class.

DISCUSSION: Students **must** attend the discussion section for which they are registered in order to receive credit for any discussion grades.

INCOMPLETES: These may only be given for work not completed due to circumstances beyond a student's control, providing the student is currently passing the class and needs to complete no more than 20% of the course requirements. Unexcused absences do not qualify for consideration.

CAVEATS: Due to unforeseen circumstances (including but not limited to weather), and/or class preference, some of the information given herein may be modified. Should that become the case, the change will be announced (and ideally discussed) in class, with additional notification made by email and/or canvas. Students **must** be able to send, receive, and check emails via their official UID accounts. The official UID account should be checked daily for any notifications.

TUTORING: See the Chemistry department website Undergraduate Link:Resources (1316 NHEB) and grad student tutoring link. Check also the tutoring center 1-5153 and learning enhancement 1-8746.

EQUAL OPPORTUNITY: The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

VETERANS CENTER: For our student veterans, the U has a Support Center in the Olpin Union, room 161. To check out their resources and current events, go to <http://veteranscenter.utah.edu>.

STUDENT WELLNESS: For students having any psychological or personal concerns, the U's Center for Student Wellness can be accessed at www.wellness.utah.edu, or 581-7776. Any students having difficulties that interfere with their performance should also advise me of their situations so that we may try to address any issues sooner rather than later.

HARASSMENT: All students have the right to be in an environment that respects their safety and well-being. Reports of harassment or assault may be reported to the title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Bldg., 581-8365, or the Dean of Students Office in room 270 of the Student Union, 581-7066. To file a report with the police, you may call 585-2677 (COPS). The Student Wellness Center (see above) may be consulted for support and guidance.

MATHEMATICAL OPERATIONS: You will need to be able to deal with the terms \ln , \log , e^x , and 10^x . The important conversion factor of ca. 2.303 comes from $\ln(10)$. Thus,

$$\ln(x) = 2.303 \log(x) \quad \text{and} \quad 10^x = e^{2.303(x)}$$

(Test these by putting in $x = 10$ in the first equation, or $x = 1$ in the second.)

Be sure you can convert the following to standard notation, with the correct number of significant figures, using a nonprogrammable calculator.

$$\frac{e^{547.2}}{e^{113.1}} \quad \log(e^{100.1}) \quad 10^{\ln(54.2)} \quad 10^{115.27}$$

In case it is not already clear, keep in mind the following:

$$10^{x+y} = (10^x)(10^y) \quad [e^{x+y} = (e^x)(e^y)] \quad \log(xy) = \log(x) + \log(y) \quad [\ln(xy) = \ln(x) + \ln(y)]$$

Be sure you can obtain roots using \ln s or \log s. As an example, determine $\sqrt[10]{10}$