

CHEM 32D (12802) General Chemistry Spring 2023*

I. Lecture

Lecturer: Erik Ruggles, Ph.D.

Office: Innovation 333 or Virtual Ethereal

Email: Erik.Ruggles@uvm.edu

Office Hours: In Office M/W/F 9:30-11:30am or

Extra Practice: For added examples, blank old exams from my 2021 and 2019 classes, SI Sessions, as well as their answer keys are posted on BB ([4. Course Materials](#) link). Remember that even though questions will change from year to year, the concepts will remain the same. **Do not study with just the old exams!** The Meat and Potatoes, or Seitan and Broccoli, is in the Homework Problems. Also, -home

Recitations: Throughout the semester I will hold recitations on Monday evening from 6:45-7:45 pm on [Teams](#). The Sunday before a mid-semester exam I will hold an exam review session from 5:00-7:00pm also on [Teams](#). **These problem sessions are meant to address your questions about lecture topics and/or homework problem solving, so come prepared with questions.** There is no prepared review. Review sessions will also be recorded and then posted in video format on [Teams](#).

Homework Quizzes: There will be ten graded homework quizzes (**best 8 out of 8**) during the semester. These assignments will occur once we finish a chapter and will be found in MasteringChemistry. To access, log in to BB and follow the [3. MasteringChemistry](#) link. You will have several days to complete each assignment, but I would not wait until the last moment.

Exams: The exams are scheduled to be on **Monday from 6:40pm-9:40pm. The Exam location depends on your lab section number.** There are no scheduled make up dates. The three Mid-Semester Exams are the same regardless of Chem32 Section, so all Chem32 students are being tested the same. The Mid-Semester Exams are written to take 1.5 hours to compete, but every

II. Laboratory

Lab Manuals: All experiments can be found online on your Blackboard page. Please make sure you *print out each experiment and bring to lab.* individual pdfs.

Lab Notebook: A notebook with carbon-less copies is required for recording lab data. All data is to be recorded in ink (not pencil). A carbon-less copy lab notebook can be bought at UVM bookstore.

Safety Eye Wear: Everyone in the lab must wear OSHA approved (EZ87stamped) safety glasses or goggles once any experimentation has been started. Students not observing this rule will receive a **ZERO** for the experiment, warnings will not be given. Safety eyewear can be purchased at the UVM bookstore. **Contact Lenses are a potential health hazard and can be worn in the laboratory only if no other types of corrective lenses are available. If you have to wear contact lenses then you must wear goggles and please let your TA know.**

Lab Attire: This is a chemical laboratory dress appropriately! It is best to wear full pants and a shirt with at least short sleeves. Shorts and short pants (capris, crops, etc.) are not allowed in the laboratory. Shirts that expose the shoulders, midriff, or back are also not allowed. Proper footwear is also necessary in the laboratory. Full shoes, preferably constructed of leather or other chemically resistant material, should be worn in when in the laboratory. Open toed shoes, open backed shoes, and shoes that expose the top or other portions of the foot are not allowed. If you arrive at lab in inappropriate attire, you will not be allowed to perform the experiment that day.

Prior to Start of Lab: Purchase your lab notebook and safety glasses. In your Lab's Blackboard review and complete the Lab Safety and Academic Integrity Modules. Prior to lab print out the experiment. **If you have not purchased or completed these items, you will not be able to begin the lab portion of the course.**

Attendance: Students must attend the lab section they are assigned to. If more than two (2) labs are missed, you will receive an **F** for the course. Only the academic dean of your college may grant an incomplete. An unexcused absence will result in a **ZERO** grade for the laboratory experiment. Official documentation of sickness

For all missed labs, please follow the procedure listed below:

- 1) Follow all UVM and local COVID guidelines, including testing when symptomatic or identified as a close contact.
- 2) Contact the lab supervisor, Christine Cardillo (Christine.cardillo@uvm.edu), and their TA as soon as they are aware they will be unable to attend lab.
 - a. In the subject line of the email, include your last name, the course you are in, and your lab sect

III. Course Grade

Percent Ranges for Grades:

I cannot say in advance which point ranges correspond to which letter grades, but I will give approximate correlations throughout the semester following each of the exams. Please note that you are not competing with each other for grades in this course: if everyone scores in the "A-range," I will give everyone "A"s for the course (really!). I encourage you all to work together as you study, to help each other learn the material, but do also recognize that all graded work must be solely your own, so be prepared to work independently to demonstrate your mastery of the material.

How to Calculate Your Points:

- 1) Class = **750 total points** (75% of grade, or 20% of total time)
- 1a) Mid-Semester Exams = **375 points** (125 points/exam)
- 1b) Homework = **100 points** (12.5 points/assignment)
- 1c) Final Exam = **275 points**

There are three mid-semester exams (each 125 points) and a final exam (275 points). If your final is your lowest grade it will count only as one unit. If one of the mid-semester exams is your lowest grade then your final will count as two units. The lowest mid-semester exam grade will be replaced by the percentage on the final. If you are absent from an exam official documentation of sickness or family crisis is required or you will receive a **ZERO** for the exam. Students with legitimate excuses will be permitted to take the exam early. Except in very unusual circumstances makeup exams will not be administered after the scheduled exam time.

Example 1if

2) Laboratory = **250 lab points** (25% of grade)

Lab Safety Quiz:	Passing grade required BEFORE the first lab.	
Pre-Lab Questions:	(10 x 8 points)	80 points
Technique:	(10 x 3 points)	30 points
Post-Lab Calculations & Questions:	<u>(10 x 14 points)</u>	<u>140 points</u>
		250 points

3) Course Grade Determination

Add up your points from class and lab and then use the chart at the beginning of this section to determine your course grade.

Example 1:

$$\begin{array}{r} 569.0 \text{ class points} \\ + \quad \underline{200 \text{ lab points}} \\ \hline 769.0 \text{ total points}/1000 \text{ points} = 76.90\% \end{array}$$

Example 2:

$$\begin{array}{r} 516.5 \text{ class points} \\ + \quad \underline{200 \text{ lab points}} \\ \hline 716.5 \text{ total points}/1000 \text{ points} = 71.65\% \end{array}$$

To summarize:

Ex1 + Ex2 + Ex3 + Final + Homework + Lab = Total Points

(Total Points)/1000] x 100 = Total Percent

IV. Tentative Lecture Schedule and End-of-Chapter Homework

Dates

Chapters

Homework Problems (Learning Objectives)

Jan 17 - 20

<u>Dates</u>	<u>Chapters</u>	<u>Homework Problems (Learning Objectives)</u>
Mar 6-10	17	Ch17: 25,27,29,31,33,35,39,41,43,45,49,51,53,57,59,61,63,65,67,69,71,75,81,83,85,87,93,95,97,103,105,111,113,115,121,125 (Module17: Buffers, Titrations, and Solubility Equilibria)
Mar 13 - 17	SPRING BREAK	
Mar 20 - 24	17	
Mar 27 - 31	17 and 18	Ch18:31,35,37,39,41,45,47,51,53,55,59,61,67,71,73,75,85,87,93,101 (Module18: Entropy, Gibbs Free Energy, Free Energy and Equilibrium, Standard State and Non-Standard State)
Apr 3	LAST DAY TO WITHDRAW FROM COURSE	
Apr 3 - 7	18 and 19	Ch19: 33,35,37,39,41,43,45,47,49,53,57,59,61,63,65,69,71,73,77,83,85,89,97,99,103,105,115,119 (Module19: Redox, Cell Potential, Redox and Equilibrium, Batteries, Electrolysis and Corrosion)
Apr 10 - 14	19	
Apr 17	EXAM 3**	Chapters 16,17,18 and 19**
Apr 17 - 21	19	
April 24 - 28	19 and 20	Ch20: 31,33,35,37,41,45,51,57,61,71,73,81,83,89 (Module20: Radioactivity, Kinetics of Radioactivity,

V. Laboratory Schedule

Jan 17-20

No Lab

Code of Student Conduct outlines policies related to violations of the Green and Gold Promise. Sanctions for violations include fines, educational sanctions, parent notification, probation, and suspension.

X. Health & Safety

The University of Vermont's number one priority is to support a healthy and safe community:

Center for Health and Wellbeing: <https://www.uvm.edu/health>

Counseling & Psychiatry Services (CAPS): Phone: (802) 656-3340

C.A.R.E.: If you are concerned about a UVM community member or are concerned about a specific event, we encourage you to contact the Dean of Students Office (802-656-3380). If you would like to remain anonymous, you can report your concerns online by visiting the Dean of Students website at <https://www.uvm.edu/studentaff11703.3e>

Prism Center: The Prism Center serves the diverse queer and trans communities at the University of Vermont. We support and empower lesbian, gay, bisexual, transgender and queer students, as well as students whose identities fall in between or expand beyond those categories, and work to create a campus community where people of all sexual and gender identities can thrive.

<https://www.uvm.edu/prism>

UVM Women & Gender Equity Center: The equity center cultivates joyful community while advancing gender equity across identities. We envision a brave, diverse, and equitable learning environment for all members of the UVM community. We provide advocacy services for those in our community who have experienced sexual or intimate partner violence, and strive to provide programming, education, and events that ask our community to explore the intersections of their gender and other identities. <https://www.uvm.edu/wagecenter>

XII. Grade Appeals

If you would like to contest a grade, please follow the procedures outlined in this policy:

<https://www.uvm.edu/policies/student/gradeappeals.pdf>

For information on grading and GPA calculation, go to <https://www.uvm.edu/registrar/grades>

XIII. FERPA Rights Disclosure

The purpose of this policy is to communicate the rights of students regarding access to, and privacy of their student educational records as provided for in the Family Educational Rights and Privacy Act (FERPA) of 1974.

<http://catalogue.uvm.edu/undergraduate/academicinfo/ferparightsdisclosure/>