

CHEM 031, GENERAL CHEMISTRY

Section A (11947), MWF 1:10-2:00 Innovation E102

University of Vermont

Spring Semester 2023

GENERAL INFORMATION

INSTRUCTOR: Amy Hoeltge, Ph.D.

EMAIL: Amy.Hoeltge@uvm.edu

OFFICE: Innovation E337

OFFICE HOURS: drop in or by appointment

COURSE DESCRIPTION

This is the first semester of a two-semester course sequence. Topics include matter, stoichiometry, gas laws, thermochemistry, quantum theory, atomic structure, electronic configurations, bonding, and intermolecular forces.

REQUIRED COURSE MATERIALS

- TEXTBOOK: Chemistry Structure and Properties; 2nd Ed.; Tro, N.
- ONLINE ACCESS: Mastering Chemistry (you will need an individual online access code)
There is no course ID. Sign in via the link on our Blackboard page.

A digital copy of the solutions manual will be provided free of charge on BlackBoard.

- LAB NOTEBOOK: A carbon-less copy notebook is required.
- SAFETY EYEWEAR: Everyone must wear OSHA approved safety glasses or goggles while in lab.
- CALCULATOR: A non-programmable, non-graphing calculator to be used specifically for exams in this course. You can find one at the UVM bookstore, or nearly anywhere, for under \$10.

LECTURE

We will meet, in person, on MWF from 1:10-2:00 pm, in Innovation E102. Attendance is not mandatory, though strongly encouraged.

- I will provide PowerPoint lecture slides on our Blackboard page. These have been designed by the author of the textbook, not by me. I will make them available to you, as a resource in addition to our in-person lectures.
- Lecture notes are created in class, not ahead of time. I will upload them to Blackboard at some point after class and you may access them on your own. Please realize that sharing these notes is not required of me and I will be doing it as a courtesy to you. The timing of each upload may vary but I usually have them ready within 24 hrs of each class.
- **Lectures are not recorded or livestreamed.** If you are unable to attend, **for any reason**, please arrange to acquire written notes from either a classmate, a peer notetaker (for those with accommodations), or from my uploaded file on Blackboard. Please do not email me asking for a Teams link for lecture.

EXAMS

Dates for each exam are listed on the lecture schedule. These three exams will be given in person, on Thursday evenings from 6:00-9:00 pm in MLS 235. Only non-programmable, non-graphing calculators are permitted for these exams. You will not be allowed to use cell phones, laptops, tablets, or any programmable devices on exams. Students caught with any other electronic devices will receive a grade of zero for the exam.

Attendance at all examinations and labs is required. A grade of zero will be assigned to any student who misses an exam. **This is firm: without exception there are no makeup exams, no alternate exam dates, and no online exam options.** Please plan accordingly. In the event of an emergency, see the Grading section of this document for the policy regarding a missing exam.

EXAM REVIEW SESSIONS

Exam review sessions are held on Teams the Sunday before each of the three exams from 12:00-2:00 pm, **except for Exam 1**. I will host a review for that exam in class on 2/8/23. If you keep up with the course work daily, you will be best prepared to benefit from these sessions. Attendance is optional but highly recommended for students having difficulty with the course. A link to each Teams review session will be provided prior to its date.

HOMEWORK

A long list of suggested practice problems can be found at the end of this syllabus, in the lecture schedule. These exercises will not be collected or graded. However, failure to master these problems will certainly not lead to a wildly successful experience in this course. You can check your answers by referring to the solutions manual.

ONLINE QUIZZES

There will be ten graded quizzes (best 10 out of 12) during the semester. These will occur once we finish a chapter and will be found online, in Mastering Chemistry. You will have an entire week to get your chapter quiz done. As such, no extensions will be granted, regardless of the reason. You are encouraged to get your quiz done as soon as possible, and multiple reminders will be given. If you choose to wait until the day that it is due, and something prohibits your access (wifi cuts off, Mastering goes down, family emergency, illness, etc), you will not receive credit for the quiz. Please plan accordingly.

LAB

More information can be found on the Blackboard page for your lab section.

- Before the start of lab, purchase your lab manual, lab notebook, and safety glasses. On your lab's Blackboard page, review and complete the Safety Presentation and Safety Quiz. You will not be able to participate in lab until this is complete.
 - Students must attend the lab section to which they are assigned. **If more than two 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 or a family crisis is required for an excused absence from lab.
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GRADING

Exams:	3 exams @ 125pts. ea.	375pts.	37.5 %
Online Quizzes:	12 quizzes (top 10 counted) @ 12.5pts. ea.	125pts.	12.5 %
Final Exam:	cumulative	250pts.	25.0 %
Labs:	10 experiments	250pts.	25.0 %
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Total Course		1,000pts	100.0%

- If one of your three mid-semester exams is lower (percentage wise) than your final exam, the percent you have earned on the final will count as that mid-semester exam score. This will only happen for one of your mid-semester exams. A missing exam will count as your lowest mid-semester exam. If you have more than one missing exam, one of them will count as a zero. **A note from the Dean's office does not excuse you from exam work or afford alternate exam date/time accommodations.**
- You must take the final exam to pass the course.
- Letter grade cut offs are not determined until after the final exam. However, in the past, whole letter ranges have generally trended as follows:

A range: 880-1,000 pts

B range: 780-870 pts

C range: 680-770 pts

D range: 580-670 pts

F is anything <580 pts

OFFICE HOURS

If you would like additional help in the course, you may drop in or schedule a specific time to meet with me. I am exceedingly available outside of class time, during evening hours, and on weekends. Drop ins are welcome any time my office door is open. For evenings and weekends, I kindly ask you to email me to arrange an in-person or Teams appointment.

Please send me an email at least two hours prior to our private session if you will not be able to make it. That way I can offer the time slot to one of your classmates.

ACCOMMODATIONS

Student Learning Accommodations Statement

“In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact ACCESS, the office of Disability Services on campus. ACCESS works with students to create reasonable and appropriate accommodations via an accommodation letter to their professors as early as possible each semester.” Contact ACCESS: A170 Living/Learning Center - 802-656-7753

ACADEMIC INTEGRITY

This policy addresses plagiarism, fabrication, cheating, and collusion.

<http://www.uvm.edu/policies/student/acaintegrity.pdf>

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

RELIGIOUS HOLIDAYS

Students have the right to practice the religion of their choice. If you need to miss class to observe a religious holiday, please submit the dates of your absence to me in writing by the end of the second full week of classes. You will be permitted to make up work within a mutually agreed-upon time.

<https://www.uvm.edu/registrar/religious-holidays>

HEALTH AND 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): (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/studentaffairs>

DIVERSITY, EQUITY, AND INCLUSION

The Division of Diversity, Equity, and Inclusion believes excellence should be inclusive of the entire University of Vermont (UVM) community and is steadfastly committed to this belief. Every day, our division strives to make our work accessible, affirming, and action-oriented to help ensure excellence is inclusive of everyone. <https://www.uvm.edu/diversity>

INTERFAITH CENTER

Each of us engages those questions differently, perhaps through a religious tradition, philosophy, or spiritual practice. No matter how you make meaning of your life, you are welcome at the Interfaith Center for reflection, spiritual practice, education, and community building.

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

MOSAIC CENTER FOR STUDENTS OF COLOR

MCSC's vision is to create a diverse and rich community of empowered, engaged, and enthusiastic students of color at UVM. We fully support the holistic development of self-identified students of color so that they can obtain their goals for academic achievement, personal growth, identity formation, and cultural development. <https://www.uvm.edu/mcsc>

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>

Spring 2023 TENTATIVE SCHEDULE

Jan 18-20	E	Ch E: 19,21,23,25,27,29,33,37,39,41,45,47,49,51,53,55,59,61,65,71,73,75,79,81,87,89,91,95,99
Jan 23-27	1	Ch 1: 35,39,43,45,49,53,55,57,59,63,65,67,71,75,77,79,83,85,87,89,91,93,97,103,105,109
Jan 30 – Feb 3	2	Ch 2: 35,37,39,41,43,51,53,55,57,59,61,63,65,67,69,71,73,79,85,89,91
Jan 30		LAST DAY TO ADD/DROP
Feb 6-10	2 and 3	
	EXAM 1	
Feb 13-17	3 and 4	Ch 3: 41,43,45,47,49,51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,81,83,87,89,91,93,103
Feb 20-24	4	Ch 4: 29,31,33,37,39,43,45,47,49,51,53,55,57,63,65,67,69,71,75,77,79,83,87,93,95,97,101,105,109,111,117,119,123,127,137
Feb 20		NO CLASSES
Feb 27 – Mar 3	5	Ch 5: 23,25,27,29,31,35,37,41,43,45,47,49,51,57,59,61,63,69,71,73,75,83,85,91,95
Mar 6-10	5 and 11a	Ch 11a: 35,37,39,41,43,45,47,49,51
Mar 13-17		SPRING BREAK
Mar 20-24	6	Ch 6: 25,29,31,33,35,39,41,43,45,49,51,53,55,57,59,61
	EXAM 2	
Mar 27-31	6 and 7	Ch 7: 15,19,21,23,25,27,29,31,33,35,37,39,41,43,45,49,53,55,57,61,63,65,67,69,71,75,81
Apr 3-7	7 and 8	Ch 8: 21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,81,87, 91
Apr 3		LAST DAY TO WITHDRAW
Apr 10-14	8 and 9	
Apr 17-21	9	Ch 9: 31,33,35,41,43,45,47,49,51,53,57,59,61,63,65,67,69,71,73,75,77,79,81,83,85,87,89,91,93,95,99,107,111,113
	EXAM 3	
Apr 24-28	10	Ch 10: 25,31,33,35,37,39,41,43,45,49,51,53,55,57,61,63,67,69,71,73,77,79,81,83,85,87,89,91,93,95,99,101,105,113,123
May 1-5	10 and 11b	Ch 11b: 57,59,63,65,67,69,71,87
May 9	FINAL EXAM	Cumulative ; 1:30pm - 4:15pm ; Innovation E102

