## **General Chemistry II**

# CHEM 032 | Section A | CRN: 10091

Instructor: Amy Hoeltge, Ph.D. Email: Amy.Hoeltge@uvm.edu

Office: Innovation E337 (online only Spring 2021) Class Time: MWF 12:00-12:50 on Teams

Office Hours: MW 1-2pm or by appointment on Teams Exams: M 6:40-9:40pm on Blackboard

**Course Description:** This is the second semester of a two-semester course sequence. Topics include solutions, kinetics, equilibrium, acid-base chemistry, aqueous ionic equilibria, thermodynamics, electrochemistry, and nuclear chemistry.

**Required Course Materials:** If you took CHEM 031 last semester, you have all of the materials you need. If not:

**Textbook:** Chemistry Structure and Properties; 2<sup>nd</sup> Ed.; Tro, N.

Plus, Mastering Chemistry online access (ISBN: 978-0-13-429393-6)

Three ways to obtain your textbook and Mastering Chemistry:

- Online for approximately \$300; text and mastering
- UVM bookstore for approximately \$160; text, solutions manual, and mastering
- Digital access for approximately \$120; etext and mastering

**Lab Manual:** You will find all experiments as individual PDFs on your lab section's BB website. You are responsible for printing out each one and bringing it with you to lab.

**Lab Notebook:** A carbon-less copy notebook is required. You can find these in the UVM bookstore.

**Safety eyewear:** Everyone must wear OSHA approved safety glasses or goggles while in the lab. Students not observing this rule will receive a **zero** for the experiment, <u>warnings will not be given</u>. Safety eyewear can be purchased at the UVM bookstore or in Discovery's Stockroom.

**Calculator:** A non-programmable, non-graphing calculator to be used for exams in this course. You can find one at the UVM bookstore, or nearly anywhere, for about \$10.

**Diversity, Equity, and Inclusion Resources:** The <u>Division of Diversity, Equity, and Inclusion</u> believes excellence should be inclusive of the entire University of Vermont community. The Division endeavors to make our work accessible, affirming, and action-oriented to help ensure that excellence is inclusive of everyone.

It is my intention to create an inclusive learning environment that encourages diversity in ideas, opinions, and perspectives. If you ever feel otherwise, please reach out and join me in conversation.

The following resources are available to everyone in the UVM community:

- The <u>UVM Prism Center</u> serves the diverse queer and trans communities at the University of Vermont. We support and empower LGBTQA+ students and work to create a campus community where people of all sexual and gender identities can thrive.
- The <u>Mosaic Center for Students of Color</u> serves to create a diverse and rich community of empowered, engaged, and enthusiastic students of color at the University of Vermont. We 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.
- The <u>Women & Gender Equity Center</u> 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.
- The <u>Interfaith Center</u> recognizes that each of us engages 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 UVM Interfaith Center for reflection, spiritual practice, education, and
  community building.
- Lectures: I will meet with the class via Teams on MWF from 12:00-12:50pm Eastern Time. In addition to this class time, you will be provided with lecture presentations available as PowerPoint slides, courtesy of your textbook's publisher. These have been designed by the author, not by me, but I will make them available to you as an additional resource. These can be found in the Course Materials section of our BlackBoard page, in their respective chapter folders.

These lectures will be audio-visually recorded for students in the class to refer back to, and for enrolled students who are unable to attend live. The recording will be available through the chat feature on our course Team. A link to each meeting will also be shared in its representative chapter folder within the Course Materials section of our BlackBoard page.

We will not meet for lecture on the following Mondays: 3/8 and 4/12. I will host an evening problem solving session on these dates. A separate Teams link will be provided and I will remind you all via email.

**Exams:** Dates for each exam are listed on the lecture schedule. These three exams will be given to all CHEM032 sections on Monday evenings from 6:40-9:40 Eastern Time. 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.

Exams are multiple choice, on BlackBoard, and written to take no more than 1.5 hrs. All students will have a full 3.0 hrs to take the exams. Since double time is already built into the exam schedule, ACCESS accommodations for extended time do not apply. You should, if applicable, submit documentation for the final exam, which is very strictly 2 hrs 45 min otherwise.

**Review Sessions:** Review sessions will be held on Teams the Sunday afternoon immediately before each of the three exams. These sessions represent an opportunity for students to ask questions about homework and class topics in preparation for the exams. If you keep up with the course work on a daily basis you will be best prepared to benefit from these sessions. Attendance is optional but highly recommended for students having difficulty with the course.

**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 appendix of your textbook. An outline of the course content along with suggested homework exercises can be found HERE.

Online Quizzes: There will be eight graded quizzes (all scores counted) this semester.

These will occur once we finish a chapter and will be found online, in Mastering Chemistry. You will have five whole days to get your chapter quiz done. No extensions or partial credit for late submissions will be granted.

**Lab:** More information can be found on the BlackBoard page for your lab section. Your TA will maintain the lab BlackBoard page, including its availability to you. **For lab related questions, please contact your TA.** 

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.

<sup>\*</sup>for on campus labs

#### **Grading:**

Exams*:	3 exams @ 125pts. ea.	375pts.	37.5%
Online Quizzes:	8 quizzes @ 12.5pts. ea.	100pts.	10.0%
Final Exam**:	comprehensive	275pts.	27.5%
Labs:	10 experiments	250pts.	25.0%

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Total Course 1,000pts 100%

#### **Accommodations:**

Student Learning Accommodations Statement

"In keeping with University policy, any student with a documented disability interested in utilizing accommodations should contact <u>ACCESS</u>, 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." A170 Living/Learning Center - 802-656-7753

Policy on Disability Certification & Student Support

Center For Health & Wellbeing

Academic Integrity: This policy addresses cheating, fabrication, collusion, and plagiarism

Code of Student Rights & Responsibilities

### Counseling & Psychiatry Services (CAPS): CAPS

If you are concerned about a UVM community member or a specific event, we encourage you to contact the Dean of Students Office at (802) 656-3380.

If you would like to remain anonymous, you can report your concerns online by visiting the <u>Dean of Students</u> website.

<sup>\*</sup>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**, **not all three**.

<sup>\*\*</sup>You must take the final exam to pass the course.

## **Class Schedule**

DATES	CHAPTERS/EVENTS	HOMEWORK/NOTICES	
2/1 - 5	WELCOME & 13	CH 13: #25,27,29,31,33,35,37,43,45,47,49,51,59,63,65,67,69,71,73,77,79,81,83,85,87,89,93,97,99,105,109,115	
2/8 – 12	13 & 14		
2/12		ADD/DROP ENDS	
2/15 – 19	14	CH 14: #27,29,31,37,41,45,47,53,55,59,65,71,75,77,83,89,91,95,103,105	
2/22	CH 13 & 14	EXAM 1	
2/22 – 26	15	CH 15: #21,23,27,29,31,33,35,37,39,41,45,47,49,53,55,59,63,65,67,69,71,73,75,79,81,83,89	
3/1 – 5	15 & 16		
3/2	TOWN MEETING DAY	NO CLASS	
3/8 – 12	16	CH 16: #31,33,35,37,39,41,45,49,51,55,59,61,65,67,69,71,75,79,81,83,85,87,89,91,95,97,99,101,103,107,109,111,113,115, 117,121,123,127,129,133,141	
3/15 – 19	16		
3/22	CH 15 & 16	EXAM 2	
3/22 - 26	17	CH 17: #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	
3/24	RESPITE DAY	NO CLASS	
3/29 – 4/2	17		
4/5 – 9	17 & 18	CH 18: #31,35,37,39,41,45,47,51,53,55,59,61,67,71,73,75,85,87,93,101	
4/8		LAST DAY TO WITHDRAW	
4/12 – 16	18 & 19	CH 19: #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	
4/15	RESPITE DAY	NO CLASS	
4/19	CH 17, 18, 19	EXAM 3	
4/19 – 23	19		
4/26 – 30	19		
5/3 – 7	19 & 20	CH 20: #31,33,35,37,41,45,51,57,61,71,73,81,83,89	
5/10 – 11	REVIEW		
TBD	FINAL EXAM	CUMULATIVE	