

CHEM 1400 GENERAL CHEMISTRY

Sections A & B MWF 1:10-2:00 Innovation E102

University of Vermont

Spring Semester 2024

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GENERAL INFORMATION

INSTRUCTOR: Amy Hoeltge, Ph.D.

EMAIL: Amy.Hoeltge@uvm.edu

OFFICE: Innovation E337

OFFICE HOURS: MWF 10:45-12:15 *by appointment*

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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.

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REQUIRED COURSE MATERIALS

1. TEXTBOOK: Chemistry: Atoms First; Burdge, J. ; 5<sup>th</sup> Ed
2. ONLINE ACCESS: ALEKS 360 (McGraw Hill) **Class ID code is KWYDP-G9CWD**
3. LAB NOTEBOOK: A carbon-less copy notebook
4. SAFETY EYEWEAR: Everyone must wear OSHA approved safety glasses or goggles while in lab.
5. CALCULATOR
6. Lab Coat

**Our ALEKS course has been synced with our Brightspace page.  
Please ONLY access ALEKS for our course from there.**

## LECTURE

We will meet, in person, on MWF from 1:10-2:00 pm, in Innovation E102. Attendance is not mandatory, though strongly encouraged. **You are responsible for all course information verbally provided during our in-person lectures.**

- I will upload lecture notes to Brightspace. You can find them in the Course Materials section under Content & Activities. Please realize that sharing these notes is not required of me and I will be doing it as a courtesy to you.
  - **Lectures will not be recorded or streamed.**
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## EXAMS

Dates for each exam are listed on the lecture schedule. These four exams will be given online, via ALEKS. To extend the greatest flexibility, I will make these exams available beginning Saturday morning at midnight (12:00 am EST) until 11:00 pm EST the following Monday night (Exam 4 is the exception... see course schedule below). You may take your exam at any time during the window in which it is available.

Aside from the three days the exams are available, they are untimed. As such, extended time accommodations will not apply.

Exams are open book. ALEKS has data/formulae information as well as a periodic table that will be available to you while taking the exam. Please do not use formulae or data outside of what ALEKS provides while taking an exam or quiz online. You will risk errors in your calculations and partial credit will not be given if this happens. You may use a calculator of your choosing.

Once the exam closes at 11:00 pm on Monday evening, any work submitted afterward will not be graded.

Students have one week from the exam deadline to discuss their results with me for clarification. You must make an appointment to discuss your exam with me.

Partial credit will be assigned by ALEKS for multi-part questions. If a question is not eligible for partial credit, (eg. single responses, multiple-choice, etc), it won't be offered.

Attendance at all examinations and labs is required. A grade of zero will be assigned to any student who misses an exam. Please plan accordingly. In the event of an emergency, see the Grading section of this document for the policy regarding a missing exam.

## 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 (and you are certainly welcome to doing any of the exercises outside of my suggested list).** You can check your answers in the back of the textbook. This is a nice way to practice putting pencil to paper and will be helpful, in general, for problem solving and in-class note taking.

In addition to hard copy end-of-chapter textbook questions, you may exercise in ALEKS, using the chapter practice links. If you are interested in feedback, rather than simply checking your answers, ALEKS provides a detailed solution and explanation for each practice exercise. I have selected a large group of topics from each chapter and the pool of questions offered on ALEKS is quite generous. Practice exercises offered on ALEKS will likely better prepare you for exams because it will require your work to be entered the same way via the database. You will become more skilled with the program (and your exam taking will be more efficient) the more you practice in ALEKS.

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## ONLINE QUIZZES

There will be twelve quizzes (best 10 out of 12 counted) during the semester. These will occur once we finish a chapter and will be found online, in ALEKS. You will have an entire week to get your chapter quiz done. As such, no extensions will be granted, regardless of the reason. Quizzes are also open book.

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## 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	4 exams @ 150 pts each	600 pts	60 %
Online Quizzes	12 quizzes (top 10 counted) @ 15 pts each	150 pts	15 %
Labs	10 experiments @ 25 pts each	250 pts	25 %
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Total Course		1,000 pts	100 %

- Your lowest exam score will be replaced by your highest exam score. A missed exam would be your lowest score.
- Letter grade cut offs are not determined until after the final exam.
- The Final Exam is simply the fourth exam (not cumulative)

## OFFICE HOURS

If you would like additional help in the course, you may schedule a specific time to meet with me during my posted office hours. I am also available by email outside of class time, during evening hours, and on weekends.

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

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## 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

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## ACADEMIC INTEGRITY

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

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

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## 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/>

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## 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>

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## 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>

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## 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>

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## 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>

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## 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>

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## 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>

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## CHEM 1400 fulfills the N2 requirement

Students completing a course fulfilling the N2: Natural Science (with lab) requirement will:

1. Demonstrate familiarity with scientific thought, observation, analysis, experimentation, and formal hypothesis testing in relation to the general field or topic of the course.
2. As appropriate to the level and field of the course, make informed judgments about scientific information and arguments related to the natural world.
3. As appropriate to the level and field of the course, use appropriate theories and models to predict change in natural systems over time.
4. Demonstrate understanding of the scientific method through practical and written work.

Spring 2024 TENTATIVE SCHEDULE

<b>DATES</b>	<b>CHAPTER</b>	<b>PRACTICE HOMEWORK SUGGESTIONS/OTHER INFORMATION</b>
Jan 17	syllabus	Make sure you have ALEKS by the end of today
Jan 19-22	1	Ch 1: 7,11,13,15,17,19,25,27,29,31,33,39,41,43,45,47,49,51,53,69,71,73,77,79,87,89,93,95,97
Jan 24-26	2	Ch 2: 9,15,17,19,21,35,37,39,45,47,53,55,57,59,61,63,65,67,69,81
<b>Jan 29</b>		<b>LAST DAY TO ADD/DROP</b>
Jan 29-Feb 5	3	Ch 3: 5,7,9,15,17,25,27,29,31,33,35,36,37,45,47,49,59,61,63,71,77,79,85,97,99,101,103
<b>Feb 10-12</b>	<b>EXAM 1</b>	<b>Exam becomes available on ALEKS at 12:00 am 2/10 and is due no later than 11:00pm 2/12 (Chapters 1-3)</b>
Feb 7-12	4	Ch 4: 5,7,9,11,13,15,19,20,21,26,28,33,35,37,39,41,43,49,53,54,55,56,65,67,71,73,75,77,91,93,95,97,99,101,103,105,111,117
Feb 14-19	5	Ch 5: 7,9,17,19,25,27,29,33,35,37,49,57,59,63,65,69,71,77,79,81,83,85,87,89,91,93,95,97,101,103,109,111
Feb 21-26	6	Ch 6: 17,19,22-25,29,35,37,39,41,43,55,57,62,64
<b>Mar 2-4</b>	<b>EXAM 2</b>	<b>Exam becomes available on ALEKS at 12:00 am 3/2 and is due no later than 11:00pm 3/4 (Chapters 4-6)</b>
Feb 28- Mar 8	7	
Mar 11-15	NO CLASSES	<b>SPRING BREAK</b>
Mar 18	NO CLASS	
Mar 20-25	8	Ch 8: 5,9,11,19,21,23,27,29,31,33,35,37,39,47,49,51,53,55,57,65,81,85
Mar 27-Apr 1	9	Ch 9: 11,19,21,23,25,27,33,35,37,39,45,47,49,51,65,67,69,71,73,75,77,101,103,105,107,115,125,139
<b>Apr 1</b>		<b>LAST DAY TO WITHDRAW</b>
Apr 3-10	10	Ch 10: 11,13,19,21,23,31,33,35,37,39,41,43,47,49,59,61,63,65,67,69,77,85,87
<b>Apr 6-8</b>	<b>EXAM 3</b>	<b>Exam becomes available on ALEKS at 12:00 am 4/6 and is due no later than 11:00pm 4/8 (Chapters 7-9)</b>
Apr 12-19	11	Ch 11: 9,23,31,33,35,45,47,49,51,53,55,57,59,61,76,79,87,89,91,97,111
Apr 22-26	12	Ch 12: 13,15,69,84,87,91,97
<b>May 4-9</b>	<b>EXAM 4</b>	<b>Exam becomes available on ALEKS at 12:00 am 5/4 and is due no later than 6:00pm 5/9 (Chapters 10-12)</b>

