CHEM 31 (60064): General Chemistry Summer 2019

I. Lecture

Lecturer: Erik Ruggles, Ph.D.   **Office:** Hills 105

Email: Erik.Ruggles@uvm.edu   **Office Hours:**   Mon-Thurs, 12:00pm . 1:00pm

Lecture Time: Mon-Fri, 9:00am . 12:00pm   **Location:** Lafayette L403

Lecture: The lecture each week will be used to cover new material and concepts along with sample problem solving. My class lecture notes for the entire semester are posted on Blackboard.

Textbook: There are three options to purchase %Ô@{ ã d ˆ Ù d ˇ & č ¦^ Á æ} å Ú¦[ ] ^¦ã•+ Ǵᵈ Ed., by Tro (Full text ISBN-13: 978-0-13-429393-6) along with Mastering Chemistry online access (Mastering not required for summer). 1) It can be purchased at an online site (~$300; text and mastering), or 2) at the UVM bookstore (~$160; text, solutions manual, and mastering), or 3) digital access (~$120; etext and mastering). The digital solutions manual will be provided for free but also comes with the UVM package and has the complete solutions to all the assigned problems. The most bang for your buck is the UVM bookstore package.

Problems: Problem sets will be assigned after each lecture and a complete list for the textbook can

II. Laboratory

Lecture Time: Mon . Wed, 1:00. 4:00pm   **Location:** Discovery Bldg. W205, W207, or W208

Lab Manuals: Œ¦Á^¢] ^¦ą ^} o Á&æ} Áà^Á[˘ } åÁ[} |ą ^Á[} Á^ [˘ ¦Á|æàq ÁÓB website as individual pdfs. Please make sure you *print out each experiment and bring to lab.*

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 n[¢^à[[\ Á&æ} Áà^Áà[˘ * @Áæ ÁWXT ¢ Áà[[\• ¢ ¦^È

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 or in the Discovery Building stockroom. ***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.

Footwear: Only shoes that cover fully the toes are permitted in lab. Sandals, flip-flops and any other open toed shoes are not permitted. You will be asked to change your shoes or receive a **ZERO** for the experiment.

Prior to Start of Lab: Purchase your lab notebook and safety glasses. Also, on Blackboard review and complete the Safety Presentation and Safety Quiz. ***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 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. If there is a need to res1S0[(n(to))-3(d)614[(n(to))98t 6(d)t(e)-3(ri)5 (d)6( )-79lso, th(6(d))-3(t)-3(0[(n(to)re)9(99-3(re)-26

III. Course Grade

Percent Ranges for Grades:

ŒÉÁ Á¡Î Á   ŒÁ Á¡€   A- ¯Â¡Ì   ÓÉÁ 85   ÓÁ Å¡€   B- ¨Ï¨Ï   ÔÉÁ¨ÏG

ÔÁ Â¡Í   C- ¯Â¡3   D+ ¯Â¡€   ÖÁ Á¡Î   D- ¯Á¡H   ØÁmÁ¡H

How to Calculate Your Points:

1)   Class = **750 total points** (75% of grade; exams and homework)

1a)   Mid-Semester Exams = **525 points** (175 points/exam)

1b)   Final Exam = **225 points**

There are three mid-semester exams (each 175 points) and a final exam (225 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 1:

	Exam 1	Exam 2	Exam 3	Final
Actual:	148.75 (85%)	78.75 (45%)	136.5 (78%)	168.7 5 (75%)
Counted:	148.75 (85%)	131.25 (75%)	136.5 (78%)	168.75 (75%)
		Total = 585.25 points		

Example 2:

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

Safety Quiz	1 point
Prelab (3 pts/per)	27 points
Lab Reports (15 pts/per)	150 points
Quizzes (8 pts/per)	<u>72 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:

585.25 class points

+ <u>200 lab points</u>

785.25 total points/1000 points = 78.25% B-

Example 2:

545.0 class points

+ <u>200 lab points</u>

745.00 total points/1000 points = 74.50% C+

To summarize:

[(Ex1 + Ex2 + Ex3 + Final + Lab = Total Points

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

Academic Integrity: Offenses against the Code of Academic Integrity (i.e. cheating) are deemed serious and insult the integrity of the entire academic community. Any suspected violations of the code are taken very seriously and will be forwarded to the Center for Stueativery seriously and

IV. Lecture Schedule and Chapter Homework

<u>Dates</u>	<u>Chapters</u>	<u>End-of-Chapter Homework Problems</u>
May 20	E and 1	ChE: 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,
		Ch1: 35,39,43,45,49,53,55,57,59,61,63,65,67,71,75, 77,79,83,85,87,89,91,93,97,103,105,107,109,117,
May 21	1 and 2	Ch2: 35,37,39,41,43,51,53,55,57,59,61,63,65,67,69,

*Extent of exam material will depend on our progress in lecture.

June 5	8 and 9	Ch9: 31,33,35,37,39,41,43,45,47,49,51,53,57,59,61, 63,65,67,69,71,73,75,77,79,81,83,85,87,89,91,93,95, 99,101,107,111,113,117,119,123
June 6	9	
June 7	**EXAM 3***	**Chapters 7, 8, and 9**
June 10	10	Ch10: 25,29,31,33,35,37,39,41,43,45,47,49,51,53,55, 57,59,61,63,67,69,71,73,77,79,81,83,85,87,89,91,93, 95,99,101,105,107,113,123,125,127
June 11	11 Review	Ch11: 53,57,59,61,63,65,67,69,71,73,77,81,85,87,93
June 12	Review	
June 13	Review	
June 14	**Final Exam**	**Cumulative**

*Extent of exam material will depend on our progress in lecture.

V. Laboratory Schedule

Date	Experiment	Description
May 20	**Check In**	Purchase breakage card, lab manual and safety glasses
	Recitation 1	On Blackboard, review and complete the Safety Presentation and Safety Quiz (Chap E-1)
May 21	Experiment 1	Density Determination
	Recitation 2	(Chap 2)
May 22	Experiment 2	Flame Emission Spec of Metals
	Recitation 3*	(Chap 3)
May 27	**Memorial Day Holiday**	
May 28	Experiment 3	Ionization Energy/Atomic Radius
	Recitation 4	(Chap 3)
May 29		

V. ACCESS Accommodations and Religious Holidays

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 - access@uvm.edu.

ACCESS Office: http://www.uvm.edu/~access/

Policy on disability certification and student support:
http://www.uvm.edu/~uvmppg/ppg/student/disability.pdf

Religious Holiday Policy Statement

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.

Illness Accommodations

The Center for Health and Wellbeing does not provide students with notes verifying medical illness. This approach makes the best use of their limited medical resources by not having students who are required to provide verification of a recent illness utilize appointment times which can be used for students who require evaluation and therapy. Inst^æàÉ&[}æ&o˦[˘¦&[||^*^ợ¼Ö^æ}ợ¦~æ&^¦[¼o@ˆ¼ can report your illness to all of your professors.

When students experience a serious illness requiring hospitalization or when an extended absence from class is foreseen, a Center staff member will (with t@¼čå^}ợ¦^¦{ ã•¾¦}D¦[ã̂¼o@¼Ö^æ}ợ¼ U~æ&^¦¼o@¼čå^}ợ¼Ô[||^*^¼¦¦Û&@[|¦¼o@æøˆæ&˘|č¦ ^{ à^¦•¼&æ}¼à^¦ æå^¼æ¸æå^¼æ¸åo@¼čå^}o¼ supported in working successfully through the absence.