

# **CHEM 32 (60054): General Chemistry Summer 2018**

## **I. Lecture**

**Lecturer:** Erik Ruggles, Ph.D.

**Office:** Hills 105

**Email:**

## II. Laboratory

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

**Lab Manuals:** All experiments can be found online on your lab's BB 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 notebook can be bought at UVM's 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 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.***

**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 manual, lab notebook, breakage card, 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 reschedule your lab time to one that is not your assigned time you must obtain permission

### III. Course Grade

#### Percent Ranges for Grades:

A+ 97	A 92	A- 90	B+ 87	B 82	B- 79	C+ 74
C 67	C- 64	D+ 61	D 57	D- 54		

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

Prelab (2 pts/per)	20 points
Lab Reports (15 pts/per)	150 points
Quizzes (8 pts/per)	<u>80 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:

$$\begin{array}{r} 585.25 \text{ class points} \\ + \quad \underline{200 \text{ lab points}} \\ \hline 785.25 \text{ total points} / 1000 \text{ points} = 78.25\% \text{ C+} \end{array}$$

Example 2:

$$\begin{array}{r} 545.0 \text{ class points} \\ + \quad \underline{200 \text{ lab points}} \\ \hline 745.00 \text{ total points} / 1000 \text{ points} = 74.50\% \text{ C+} \end{array}$$

**To summarize:**

$$\text{Ex1} + \text{Ex2} + \text{Ex3} + \text{Final} + \text{Lab} = \text{Total Points}$$

$$(\text{Total Points}) / 1000 \times 100 = \text{Total Percent}$$

**Academic Integrity: Offenses against the Code of Academic Integrity (i.e. cheating) are de**

## IV. Lecture Schedule and Chapter Homework

<u>Dates</u>	<u>Chapters</u>	<u>End-of-Chapter Homework Problems</u>
June 18	13	Ch13: 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
June 19	13 and 14	Ch14: 27,29,31,37,41,45,47,53,55,59,65,71, 75,77,83,89,91,95,103,105,107
June 20	14	
June 21	15	Ch15: 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
<b>June 22</b>	<b>First Exam*</b>	<b>Chapters 13,14,15*</b>
June 25	15 and 16	Ch16: 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
June 26	16	
June 27	16	
June 28	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
<b>June 29</b>	<b>Second Exam*</b>	<b>Chapters 15,16,17*</b>
July 2	17	
July 3	17 and 18	Ch18:31,35,37,39,41,45,47,51,53,55,59,61, 67,71,73,75,85,87,93,101
<b>July 4</b>	<b>Independence Day</b>	
July 5	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

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

<b>July 6</b>	<b>Exam 3*</b>	<b>Chapters 17,18,19*</b>
July 9	19	
July 9	19	
July 10	20	Ch20: 31,33,35,37,41,45,51,57,61,71,73,81, 83,89
July 11	Review	
July 12	Review	
<b>July 13</b>	<b>Cumulative Final Exam</b>	

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## V. Laboratory Schedule

<u>Date</u>	<u>Experiment</u>	<u>Description</u>
June 18	<b>Check In</b>  Recitation 1	Purchase breakage card, lab manual and safety glasses On Blackboard, review and complete the Safety Presentation and Safety Quiz (Chap 13)
June 19	Experiment 1 Recitation 2	Freezing Point Depression (Chap 13)
June 20	Experiment 2 Recitation 3*	Iodination of Acetone (Chap 14)
June 25	Experiment 3 Recitation 4	$K_{eq}$ of FeSCN (Chap 15)
June 26	Experiment 4 Recitation 5	Neutralization Power of Antacids (Chap 16)
June 27	Experiment 5 Recitation 6	Acids, Bases, pH and Buffers (Chap 16-17)
July 2	Experiment 6 Recitation 7	$K_{sp}$ of Copper Hydroxide (Chap 17)
July 3	Experiment 7 Recitation 8	Hot and Cold Packs (Chap 18)
<b>July 4</b>	<b>Independence Day</b>	
July 9	Experiment 8 No Recitation	Thermodynamics of Borax (long lab)
July 10	Experiment 9 Recitation 9	Oxidizing Power of Bleach (Chap 19)
July 11	Experiment 10 Recitation 10 <b>Check Out</b>	Electrolysis and Electroplating (Chap 20)

## VI. 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](mailto: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.*

## VII. 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 pr