CHEM 31A (15554): General Chemistry Spring 2016

I. Lecture

Lecturer: Alan Chant, Ph.D. **Office:** A332 Cook

Email: achant@uvm.edu Office Hours:

10:40 AM - 11:40 AM and 1:00 PM - 2:00 PM

(Mon/Wed/Fri)

Phone: 802-656-0283 *or by appointment*

Lecture Time: 9:40 – 10:30 AM

(Mon/Wed/Fri) Location: LAFAYETTE HALL L207

Lecture: The lecture each week will primarily involve covering material from the assigned textbook and will include going over numerical problems. Included in this syllabus is a tentative schedule outlining lecture dates/times, text material and suggested problems sets. After each lecture, I will post my lecture notes on Blackboard. You are expected to come prepared and on time and to stay until the lecture has finished.

Textbook: "Chemistry, A Molecular Approach", 3rd Ed., by Nivaldo Tro (2nd Custom Edition). A Solutions manual comes with the textbook. A complete set of answers to assigned problems can be found in the solutions manual. You can purchase these books from the UVM bookstore.

Problem Sets: We will be using the online program "Sapling Learning" for homework assignments (**homework is ungraded**) and weekly quizzes. We will also be using "Sapling Learning" for the lab portion of the course. You will be given instructions for how to sign up for your account prior to the start of the semester.

Select problems from the back of the book will be assigned after each lecture but will not be graded.

Communications: I will be using Blackboard to e-mail and post important announcements. I will also be using this platform to post additional course resources and grades.

Teaching Assistants' Office Hours: TAs will be conducting office hours in Cook A-302 at various times throughout the week. The schedule will be posted in Cook A-302 or will be available from your TA. You can approach any of the TAs for help, not just your lab TA. You may utilize this time to get help with both lab- and lecture-related questions.

Exams: Mid-term exams are scheduled for Thursday nights from 6:00 - 9:00 PM in LAFAYETTE HALL L207. There are no make-up dates. A zero grade as a result of the missed exam will be used as the dropped grade when appropriate when determining final grades. Only non-programmable calculators are permitted during exams. It is the responsibility of each student to bring their own non-programmable calculator to the exam. Calculators may not be shared. No other electronic devices, including laptops, cell phones, MP3 players, iPods, etc., are allowed. Students caught using any electronic device other then a non-programmable calculator will receive a zero for the exam.

Exam Dates:

Thur, 11th Feb: Chapters 1, 2, 3 Thur, 17th Mar: Chapters 4,5, 6 Thur, 7th Apr: Chapters 7, 8

Thur, 28th Apr: Chapters 9,10, 11.

Mon, 9th May (Final Exam: 07:30 – 10:15 PM) in Lafayette Hall L207 (comprehensive).

II. Laboratory

A separate syllabus for the lab portion of the course is available on both Blackboard and your "Sapling Learning Lab" course site.

All matters concerning the Lab should be directed to Christine Cardillo: Christine.Cardillo@uvm.edu

III. Course Grade:

Percent Ranges for Grades:

A+ ≥ 96	A ≥ 90	A-≥88	B+ ≥ 85	B ≥ 80	B- ≥ 77	C+ ≥ 72
C ≥ 65	C- ≥ 63	D+ ≥ 60	D ≥ 56	D- ≥ 53	F ≤ 51	

Points needed to obtain a specific *final* grade:

$A+ \ge 960$	A ≥ 900	A- ≥ 880	$B+ \geq 850$	B ≥ 800	B- ≥ 770	C+ ≥ 720
C ≥ 650	C- ≥ 630	D+ ≥ 600	D ≥ 560	D- ≥ 530	F ≤ 510	

How to Calculate Your Points:

Class = **800 total points** (80% of grade; Exams and quizzes)

Exams = **500** points (5 Exams) x 1.44 = **720** weighted points

Quizzes = 80 points

Each exam is worth 100 points, with the exception of the final, which is worth 200 points. Therefore, the final exam counts as two midsemester exams. If your final is your lowest grade, then it will count as only one exam worth 100 points. If any one of the four midsemester exams is your lowest grade, then it will be replaced by the final, which will count as two exams (graded out of 200 points).

Example 1:

	Exam 1	Exam 2	Exam 3	Exam 4	Final X2	Quizzes
Actual	85	45	78	77	[80 80]	70
Counted	85	80	78	77	80	70

Example 2:

Exam 1 Exam 2 Exam 3 Exam 4 Final X2 Quizzes

Actual	67	78	76	69	[62 62]	68
Counted	67	78	76	69	62	68

The laboratory portion of the course accounts for 20% of the course and is worth a total of 200 points. Grades are obtained from the lab coordinator after final grade adjustments are made. The average grade for the lab section is normally 80% or 160 points.

IV. Tentative Lecture schedule

Date	Chapter	Suggested Problems
Jan 18 – Jan 22		Chapter 1 : 9, 12, 16, 21, 26, 28, 30, 41, 46, 53,
	1	55, 59, 67, 69, 83, 87, 93, 95, 98, 106, 110, 117,
[Chap. 1 quiz]		122, 125.
Jan 25 – Jan 29		Chapter 2 : 6, 10, 13 -24, 31, 39, 41, 47, 50, 53,
	2	57, 61, 69, 72, 77, 81, 85, 98, 106, 111.
[Chap. 2 quiz]		
		Charter 2, 2, 4, 0, 14, 22, 24, 27, 44, 47, 40
Feb 1 – Feb 5		Chapter 3 : 2, 4, 8, 14, 32, 34, 37, 44, 47, 49, 52, 57, 61, 67, 69, 72, 77, 81, 85, 89, 91, 97,
[Chap. 3 quiz]	3	101, 113, 117, 121, 126.
[Chap. 5 quiz]	3	101, 113, 117, 121, 120.
Feb 8 – Feb 12		Chapter 4 : 2, 5, 10, 11, 13, 26, 27, 31, 33, 37,
	4	43, 46, 50, 53, 55, 57, 60, 63, 65, 71, 75, 98,
[Chap. 4 quiz]		101, 107, 111, 114, 117, 120.
[EXAM 1]		
Feb 15 – Feb 19	_	Chapter 5 : 1, 9, 12, 15, 17, 21, 24, 32, 34, 36,
	5	38, 42, 45, 47, 49, 52, 58, 63, 66, 71, 77, 80, 82,
		83, 86, 89, 95, 98, 101, 104, 106, 111, 115,
		121, 127, 129.
Feb 22 – Feb 26	_	
	5 cont.	

[Chap. 5 quiz]		
Feb 29 – Mar 4	6	Chapter 6 : 6, 10, 11, 13, 15, 19 21, 25, 32, 35, 39, 42, 44, 46, 49, 53, 56, 58, 61, 64, 67, 71, 74,
		77, 80, 83, 85, 87, 91, 97, 102, 106, 110, 113.
Mar 7 – Mar 11		
		SPRING BREAK
Mar 14 – Mar 18	_	Chapter 7 : 2, 5, 7, 9, 12, 16, 20, 26, 32, 34, 39,
[EXAM 2]	7	42, 45, 52, 60, 63, 68, 71, 73, 76, 78, 82, 86, 92.
Mar 21 – Mar 25		
	7 cont.	
[Chap. 7 quiz]		
Mar 28 – Apr 1	0	Chapter 8: 7, 11, 15, 16, 23, 25, 28, 32, 35, 37,
[Chap. 8 quiz]	8	42, 43, 47, 48, 51, 55, 58, 61, 64, 65, 68, 72, 78, 80, 83, 85, 89, 91, 93, 99, 105, 110.
[Chap. o quiz]		00, 03, 03, 07, 71, 73, 77, 103, 110.
Apr 4 – Apr 8		Chapter 9 : 3, 9, 11, 15, 19, 21, 26, 28, 32, 33,
	9	37, 40, 46, 48, 51, 55, 60, 65, 70, 72, 73, 76, 79,
[Chap. 9 quiz]		81, 84, 87, 89, 95, 98, 105, 110, 112, 114.
[EXAM 3]		
Apr 11 – Apr 15		Chapter 10: 1, 5, 9, 14, 16, 23, 25, 28, 31, 34,
•	10	36, 39, 42, 46, 50, 53, 57, 63, 71, 75, 77, 86, 92,
[Chap. 10 quiz]		95.
Apr 18 – Apr 22		Chapter 11: 5, 9-35, 46, 48, 50, 53, 56, 55, 61,
	11	66, 68, 71, 74, 78, 81, 84, 86, 89, 104, 109, 114,
A 25 A 20		117, 119, 122, 125, 128, 137.
Apr 25 – Apr 29	11 cont.	
[Chap. 11 quiz]	11 COIIC.	
[EXAM 4]		
May 2 – May 4		Buffer week/ Review Sessions
9th May -		
FINAL EXAM		GOOD LUCK!

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.

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

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.

Academic Integrity

As UVM students, you are expected to conduct yourself in accordance with the Codes of Academic Integrity and Student Rights and Responsibilities. Offenses against these codes are deemed serious and insult the integrity of the entire academic community. Any suspected violations of these codes are taken very seriously and will be forwarded to the Center for Student Ethics and Standards for further intervention.