CHEM 31A (90198): General Chemistry 2018

I. Lecture

Lecturer: Alan Chant, Ph.D. **Office:** Hills 106

Email: <u>achant@uvm.edu</u> **Office Hours:**

11 AM – 1PM (Mon/Wed/Fri)

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

Lecture Time: 9:40 – 10:30 AM

(Mon/Wed/Fri) Location: Marsh Life Sciences 235

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: *"Structure and Properties", 2nd Ed., by Nivaldo J. Tro .* 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 "Mastering Chemistry" for homework assignments, 'self-assessment' quizzes **(both ungraded)** and quizzes **(graded)**. *Every* student on the course needs to have access to the homework site. To register for 'Mastering Chemistry' you must go through your Chem 31 Blackboard site to register - by clicking on the 'Mastering Chemistry' link in the navigation bar (to the left side of the homepage) – you don't need a 'course access code' if you go via Blackboard. If you purchased a Mastering Chemistry access code last semester, you will <u>not</u> need to register again. Simply access Mastering Chemistry via Blackboard and your account will automatically be updated in the new course site.

<u>Note:</u> There will be 12 total quizzes, however, only the top 10 scores will count toward your final quiz grade.

You are encouraged to attempt all the problems outlined in the 'Course Schedule' **(these will be ungraded)** and the problems provided by 'Mastering Chemistry'.

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 the new Discovery building at various times throughout the week. The schedule will be posted in Discovery 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.

Supplemental instructors (S.I.): In addition to T.A support, there will be additional help from S.Is. – schedule to be determined. You may utilize this time to get help with lecture-related questions.

Exams: Mid-term exams are scheduled for Tuesday nights from 6:00 - 9:00 PM in Billings-IRA Hall. 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:

September 11 Exam 1 (6:00-9:00pm; Billings-IRA Hall)

October 16 Exam 2 (6:00-9:00pm; Billings-IRA Hall)

November 13 Exam 3 (6:00-9:00pm; Billings-IRA Hall)

December 10 Final Exam (7:30 am-10:15 am; MLS 235)

II. Laboratory

A separate syllabus for the lab portion of the course is available on your laboratory Blackboard site. *Labs will begin the week of the 10th September*.

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

III. Course Grade

Percent Ranges for Grades:

I cannot say in advance which point ranges correspond to which letter grades, but I will give approximate correlations throughout the semester following each of the exams. Please note that you are not competing with each other for grades in this course: if everyone scores in the "A-range," I will give everyone "A" s for the course (really!). I encourage you all to work together as you study, to help each other learn the material, but do also recognize that all graded work must be solely your own, so be prepared to work independently to demonstrate your understanding of the material.

How to Calculate Your Points:

- 1) Class = **750 total points** (75% of grade; exams and homework)
- 1a) Mid-Semester Exams = **375 points** (125 points/exam)
- 1b) Homework = **125 points** (12.5 points/assignment)
- 1c) Final Exam = 250 points

There are three mid-semester exams (each 125 points) and a final exam (250 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 Scores: | 106.25 (85%) | 56.25 (45%) | 97.5 (78%) | 187.5 (75%) |
| Counted Scores | s:106.25 (85%) | 93.75 (75%) | 97.5 (78%) | 187.5 (75%) |
| Homework Sco | re: 105.0 (84%) | Class Points = 485 | .0 exam + 105.0 hor | nework |

Total = 590.0 points

Example 2:

| | Exam 1 | Exam 2 | Exam 3 | Final |
|---|------------|------------|------------|-------------|
| Actual: | 87.5 (70%) | 97.5 (78%) | 95.0 (76%) | 170.0 (68%) |
| Counted: | 87.5 (70%) | 97.5 (78%) | 95.0 (76%) | 170.0 (68%) |
| Homework Score: 87.5 (70%) Class Points = 450.00 exam + 87.5 homework | | | | |
| Total = 537.5 points | | | | |

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

| Safety Quiz | 1 point |
|--------------------------|------------|
| Prelab (3 pts/per) | 27 points |
| Lab Reports (15 pts/per) | 100 points |
| Quizzes (8 pts/per) | 72 points |
| | 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:

590.0 class points

+ 200 lab points

790.0 total points/1000 points = 79.00% B-

Example 2:

537.5 class points

+ 200 lab points

737.5 total points/1000 points = 73.75% C+

IV. Lecture Schedule and Chapter Homework

| Exam 1 September 11 | |
|---------------------|---|
| Exam 2 October 16 | Final December 10 (Marsh Life 235; 7:30-10:15 am) |
| Exam 3 November 13 | |

| Exam 3 Novemb | ber 13 | |
|-------------------|-----------------|---|
| <u>Dates</u> | <u>Chapters</u> | End-of-Chapter Homework Problems |
| Aug. 27 - Aug. 31 | 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, |
| 0 1 0 | 1 ABOB BAY | IOLIDAY |

| Sept. 3 | LABOR DAY HOLIDAY | | |
|-------------------|-------------------|---|--|
| Sept. 4 - Sept. 7 | 1 and 2 | Ch2: 35,37,39,41,43,51,53,55,57,59,61,63,65,67,69,71,73,79,85,89,91 | |

| Sept. 10 | LAST DAT TO ADD/DROP COURSE |
|----------|-----------------------------|
| | |

| Sept. 10 - Sep | . 14 2 |
|----------------|--------|
|----------------|--------|

| Sept. 11 | EXAM 1 | Chapters E, 1, and 2, |
|---------------------|---------|--|
| Sept. 17 - Sept. 21 | 3 | Ch3: 41,43,45,47,49,51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,81,83,87,89,91,93,95,97,101,103,109,115,127,135 |
| Sept. 24 - Sept 28 | 4 | Ch4: 29,31,33,35,37,39,43,45,47,49,51,53,55,57,61, 63,65,67,69,71,75,77,79,83,87,93,95,97,101,103,105, 109,111,117,119,121,123,125,127,137 |
| Oct. 1 - Oct. 5 | 4 and 5 | Ch5: 23,25,27,29,31,35,37,41,43,45,47,49,51,53,55, 57,59,61,63,65,69,71,73,75,79,81,83,85,91,95,97,99, 101 |

| <u>Dates</u> | <u>Chapters</u> | End-of-Chapter Homework Problems |
|-------------------|----------------------|---|
| Oct. 8 | FALL RECESS | |
| Oct. 8 - 12 | 5 | |
| Oct. 16 | EXAM 2 | Chapters 3, 4,and 5 |
| Oct. 15 - Oct. 19 | 6 | Ch6: 25,29,31,33,35,39,41,43,45,49,51,53,55,57,59,61 |
| Oct. 22 -Oct. 26 | 11 and 7 | Ch11: 35,37,39,41,43,45,47,49,51 |
| | | Ch7: 15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,53,55,57,61,63,65,67,69,71,75,81,85 |
| Oct. 29 | LAST DAY TO WI | THDRAW FROM COURSE |
| Oct. 29 - Nov. 2 | 7 and 8 | Ch8: 21,23,25,27,29,31,33,35,37,39,41,43,45,47,49, 51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,81,87, 91,93,99 |
| Nov. 5 - Nov. 8 | 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 |
| Nov. 13 | EXAM 3 | Chapters 6, 11, 7, 8, |
| Nov. 12 - Nov. 16 | 9 | |
| Nov. 19 -Nov. 23 | THANKSGIVING H | HOLIDAY |
| Nov. 26 - Nov. 30 | 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 |
| Dec. 3 – Dec. 7 | 10, 11 and review | Ch11: 53,57,59,61,63,65,67,69,71,73,77,81,85,87,93 |
| Dec. 10 | Final Exam | Cumulative (Marsh Life 235; 7:30-10:15 am) |

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.