# CHEM 31A (12906): General Chemistry SPRING 2018

#### I. Lecture

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

Email: achant@uvm.edu Office Hours:

10:30 AM - 11:30 AM

1 PM – 2PM

(Mon/Wed/Fri)

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

**Lecture Time:** 

9:40 - 10:30 AM

(Mon/Wed/Fri) Location: Billings – IRA Hall

**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", 2<sup>nd</sup> 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 Thursday nights from 6:00 - 9:00 PM in 301 Williams 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:**

February 8 Exam 1 (6:00-9:00pm; 301 Williams Hall)

March 8 Exam 2 (6:00-9:00pm; 301 Williams Hall)

April 2 Last Day to Withdraw

**April 12** Exam 3 (6:00-9:00pm; 301 Williams Hall)

May 10 Final Exam (10:30 am-1:15 pm; Billings-IRA Hall)

## 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 29th January*.

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

### 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 | F < 54 |        |

#### **How to Calculate Your Points:**

- 1) Class = **750 total points** (75% of grade; exams and homework)
- 1a) Mid-Semester Exams = **390 points** (130 points/exam)
- 1b) Homework = **100 points** (12.5 points/assignment)
- 1c) Final Exam = 260 points

The final exam score is the equivalent to two mid-term exams. If one of your mid-term exams is lower than the point equivalent for the final then the mid-term grade will be replaced by the equivalent point value from the final exam.

#### Example 1:

|                | Exam 1              | Exam 2      | Exam 3            | Final       |
|----------------|---------------------|-------------|-------------------|-------------|
| Actual:        | 127.5 (85%)         | 67.5 (45%)  | 117.0 (78%)       | 150.0 (75%) |
| Counted:       | 127.5 (85%)         | 112.5 (75%) | 117.0 (78%)       | 150.0 (75%) |
| Homework:      | 84.0 (84%)          |             |                   |             |
| Class Points = | 507.0 exam pnts + 8 | Tota        | al = 591.0 points |             |

### Example 2:

|          | Exam 1      | Exam 2      | Exam 3      | Final       |
|----------|-------------|-------------|-------------|-------------|
| Actual:  | 105.0 (70%) | 117.0 (78%) | 114.0 (76%) | 136.0 (68%) |
| Counted: | 105.0 (70%) | 117.0 (78%) | 114.0 (76%) | 136.0 (68%) |

Homework Score: 94.0 (94%)

Class Points = 472.0 exam + 94.0 homework

Total = 566.0 points

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

591.0 class points

+ 200 lab points

791.0 total points/1000 points = 79.1% B-

### Example 2:

566.0 class points

+ 200 lab points

766.0 total points/1000 points = 76.6% C+

# **IV. Lecture Schedule and Chapter Homework**

| <u>Date</u>                                      | Chapter               | ter Homework Problems   |                          |
|--|-----------------------|---|--------------------------|
| Jan 15   | Martin Lutl           | ner King Holiday  |                          |
| Jan 16 - 19                                      | E and 1               | Ch E: 19,21,23,25,27,29,33,37,39,41,45,47,49,51, 55,59,61,65,71,73,75,79,81,87,89,91,95,99  |                          |
|  |                       | Ch 1: 35,39,43,45,49,53,55,57,59,61,63,65,67,71, 77,79,83,85,87,89,91,93,97,103,105,107,10 117,   |                          |
| Jan 22   | Last Day to           | Add/Drop Course   |                          |
| Jan 22 - 26                                      | 1 and 2               | Ch 2: 35,37,39,41,43,51,53,55,57,59,61,63,65,67,71,73,79,85,89,91   | 69,                      |
| Jan 29 - Feb 2                                   | 2                     |   |                          |
| Feb 5 - 9  | 3                     | Ch 3: 41,43,45,47,49,51,53,55,57,59,61,63,65,67,71,73,75,77,79,81,83,87,89,91,93,95,97,10 103,109,115,127,135   |                          |
|  |                       |   |                          |
| Feb 8  | First Exam            | * Chapters 1, 2, 3  |                          |
| <b>Feb 8</b> Feb 12 - 16                         | First Exam 4          | Chapters 1, 2, 3  Ch 4: 29,31,33,35,37,39,43,45,47,49,51,53,55,57,63,65,67,69,71,75,77,79,83,87,93,95,97,10 103,105,109,111,117,119,121,123,125,127 7   | 1,                       |
|  |                       | Ch 4: 29,31,33,35,37,39,43,45,47,49,51,53,55,57,63,65,67,69,71,75,77,79,83,87,93,95,97,10 103,105,109,111,117,119,121,123,125,127 7   | 1,                       |
| Feb 12 - 16                                      | 4                     | Ch 4: 29,31,33,35,37,39,43,45,47,49,51,53,55,57,63,65,67,69,71,75,77,79,83,87,93,95,97,10 103,105,109,111,117,119,121,123,125,127 7   | 1,<br>,13                |
| Feb 12 - 16 Feb 19                               | 4<br>Presidents       | Ch 4: 29,31,33,35,37,39,43,45,47,49,51,53,55,57,63,65,67,69,71,75,77,79,83,87,93,95,97,10 103,105,109,111,117,119,121,123,125,127 7  Day  Ch 5: 23,25,27,29,31,35,37,41,43,45,47,49,51,53,57,59,61,63,65,69,71,73,75,79,81,83,85,91   | 1,<br>,13                |
| Feb 12 - 16  Feb 19  Feb 19 - 23                 | 4  Presidents 4 and 5 | Ch 4: 29,31,33,35,37,39,43,45,47,49,51,53,55,57,63,65,67,69,71,75,77,79,83,87,93,95,97,10 103,105,109,111,117,119,121,123,125,127 7  Day  Ch 5: 23,25,27,29,31,35,37,41,43,45,47,49,51,53,57,59,61,63,65,69,71,73,75,79,81,83,85,91   | 1,<br>,13<br>55,<br>,95, |
| Feb 12 - 16  Feb 19  Feb 19 - 23  Feb 26 – Mar 2 | Presidents 4 and 5    | Ch 4: 29,31,33,35,37,39,43,45,47,49,51,53,55,57,63,65,67,69,71,75,77,79,83,87,93,95,97,10 103,105,109,111,117,119,121,123,125,127 7  Day  Ch 5: 23,25,27,29,31,35,37,41,43,45,47,49,51,53,57,59,61,63,65,69,71,73,75,79,81,83,85,91 97,99,101  Ch 6: 25,29,31,33,35,39,41,43,45,49,51,53,55,57,61 | 1,<br>,13<br>55,<br>,95, |

| Mar 12 - 16      | SPRING BR                        | REAK  |  |
|------------------|----------------------------------|---|--|
| Mar 19 - 23      | 11 and 7                         | Ch 11: 35,37,39,41,43,45,47,49,51   |  |
| Mar 26 - 30      | 7 and 8                          | Ch 7: 15,17,19,21,23,25,27,29,31,33,35,37,39,41,43,<br>45,47,49,53,55,57,61,63,65,67,69,71,75,81,85                                       |  |
| Apr 2            | Last Day to Withdraw from Course |   |  |
| Apr 2 - 6        | 8 and 9                          | Ch 8: 21,23,25,27,29,31,33,35,37,39,41,43,45,47,49,<br>51,53,55,57,59,61,63,65,67,69,71,73,75,77,79,<br>81,87, 91,93,99                   |  |
| Apr 9 - 13       | 9                                | Ch 9: 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   |  |
| Apr 12           | Exam 3*                          | Chapters 6, 11, 7, 8, 9   |  |
| Apr 16 - 20      | 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 |  |
| Apr 23 - 27      | 10 and 11                        | Ch 11: 53,57,59,61,63,65,67,69,71,73,77,81,85,87,93   |  |
| April 30 - May 4 | 11                               |   |  |
| May 10           | Cumulative                       | Final Exam (10:30 am-1:15 pm; Billings – IRA Hall)  |  |

# 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.