

## CHEM 209, Winter 2015

UNIVERSITY OF CALGARY  
DEPARTMENT OF CHEMISTRY  
COURSE OUTLINE  
Winter 2015

### 1. COURSE: CHEMISTRY 209, General Chemistry for Engineers

| LEC                                  | DAYS | TIME         | ROOM    | INSTRUCTOR    | OFFICE  | PHONE    | EMAIL  | OFFICE HOURS |
|--------------------------------------|------|--------------|---------|---------------|---------|----------|--|--------------|
| L01                                  | TR   | 12:30 – 1:45 | SB 103  | Dr. M. Parvez | SB 331  | 220-5348 | <a href="mailto:parvez@ucalgary.ca">parvez@ucalgary.ca</a>     | TBA          |
| L02                                  | TR   | 8:00 – 9:15  | ICT 102 | Dr. S. Hinman | SA 144C | 220-6017 | <a href="mailto:ashinman@ucalgary.ca">ashinman@ucalgary.ca</a> | TBA          |
| Course / Lab / Tutorial Coordinator: |      |              |         | Dr. M. Parvez | SB 331  | 220-5348 | <a href="mailto:parvez@ucalgary.ca">parvez@ucalgary.ca</a>     | TBA          |

Course home page can be reached via the course management system.

Departmental Office: SA 229, 220-5341, [info@chem.ucalgary.ca](mailto:info@chem.ucalgary.ca)

2. **PREREQUISITES:** Chemistry 30 (or Continuing Education - Introduction to Chemistry) and one of Mathematics 30-1 or Pure Mathematics 30 or Mathematics II (offered by Continuing Education). Mathematics 31 is strongly recommended.  
(<http://www.ucalgary.ca/pubs/calendar/current/chemistry.html#6509>)

Note: The calendar description and the Faculty of Science policy on prerequisites and antirequisites is described in section 3.5 C. of the online University Calendar (<http://www.ucalgary.ca/pubs/calendar/current/sc-3-5.html>). Students are responsible to ensure that they meet all prerequisite requirements for each course in which they are registered. Students who do not meet these requirements will be deleted from the course.

3. **GRADING:** The University policy on grading and related matters is described sections [F.1](#) and [F.2](#) of the online University Calendar (<http://www.ucalgary.ca/pubs/calendar/current/f.html>). In determining the overall grade in the course the following weights will be used:

|                            |     |                                    |
|----------------------------|-----|------------------------------------|
| Midterm Examination        | 20% | (Wednesday, March 4, 7–9 pm)       |
| Laboratory experiments (5) | 20% |                                    |
| Quizzes (10)               | 20% |                                    |
| Final Examination          | 40% | (To be scheduled by the Registrar) |

**A weighted average of a minimum of 50% in the exams component, 50% in the labs and 50% in tutorials are required to obtain a mark of C– or better.**

Each piece of work submitted by the student will be assigned a numerical score. The total score for each course component will be converted into the percentage, listed above. The total term work score, as percentage, will be used to calculate the term work letter grade according to the following Grading Scale:

#### Approximate Grading Scale:

|             |             |             |             |             |             |
|-------------|-------------|-------------|-------------|-------------|-------------|
| A+          | A           | A-          | B+          | B           | B-          |
| 92% - 100%  | 86% - 91.9% | 82% - 85.9% | 78% - 81.9% | 74% - 77.9% | 70% - 73.9% |
| C+          | C           | C-          | D+          | D           | F           |
| 66% - 69.9% | 62% - 65.9% | 58% - 61.9% | 54% - 57.9% | 50% - 53.9% | < 49.9%     |

4. **MISSED COMPONENTS OF TERM WORK:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in section 3.6: <http://www.ucalgary.ca/pubs/calendar/current/sc-3-6.html>. It is student's responsibility to familiarize himself/herself with these regulations. See also: <http://www.ucalgary.ca/pubs/calendar/current/e-3.html>.
5. **EXAMINATIONS:** All sections will write the same examinations. The questions are based on input from all instructors for the course. Special Needs Students must be registered with the Student Accessibility Services (<http://www.ucalgary.ca/pubs/calendar/current/b-1.html>). Students should also read the Calendar, Section G, on Examinations: <http://www.ucalgary.ca/pubs/calendar/current/g.html>. **There will be a common Midterm Test for all lecture sections on Wednesday, March 4 from 7:00-9:00pm.** The rooms will be announced when available.

**REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.** If you have a scheduling conflict with this out-of-class-time activity, please inform your instructor by February 10 at the very latest.

6. **TEXTBOOK:** The textbook for this course is Silberberg M, Lavieri S, Venkateswaran R. 2013. Chemistry: The Molecular Nature of Matter and Change. 1<sup>st</sup> Canadian Ed. McGraw-Hill Ryerson. *This book comes with the Study Guide/Student Solutions Manual.* The bundle ISBN is: **1259066428**. Selected portions of this text will be assigned for reading during the term. The initial reading assignment is provided in the course webpage. The course content and the order of chapters/topics to be covered are indicated on the course webpage.
7. **EXAMINATION Policy:** Students must use the Schulich School of Engineering sanctioned calculator for quizzes, tests and examinations.
8. **Approved Mandatory Fees:** The Department of Chemistry has a laboratory glassware breakage fee. At the start of the course, each student is assigned a locker and checks-in to establish that it contains a complete set of usable glassware. By signing for check-in, a student agrees that s/he is now responsible for the glassware until check out. Any equipment that is missing, unusable or has been replaced during the semester will be charged to the student. *Any student, including students who drop or withdraw from the course, and who fails to check out before the last day of lectures for the term will be assessed a charge of \$30.00. If this fee is not paid by the last day of the final examination period of the term, an additional \$10.00 administrative fee will be charged and university services (registration, transcripts, etc.) may be withheld.* The last day of withdrawal from any half-year course is stated in the 2014-2015 Calendar as Monday April 15<sup>th</sup>, 2015 (<http://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html>).
9. **WRITING:** For all components of the course, the quality of student's writing in any written work will be a factor in the evaluation. See also <http://www.ucalgary.ca/pubs/calendar/current/e-2.html>.
10. **LABORATORY SAFETY COURSE:** All undergraduate students taking chemistry laboratories are required to complete an introductory course (approx. 50 minutes) on laboratory safety. This course is presented in an online format. *The Safety Course must be completed before the first wet experiment.* Students who do not complete the safety lessons will subsequently be denied admission to the laboratories. While it will not count directly to the final grade, the material is considered to be part of the course and is therefore appropriate for inclusion into laboratory prelabs, quizzes and exams.
11. **LABORATORY INFORMATION:** Laboratory experiments begin the week of January 12<sup>th</sup>, 2015 with check-in for those in an **odd** numbered lab section and the following week for those in an **even** numbered laboratory section. Consult your Peoplesoft schedule for exact times and room assignments.

Laboratory Experiments. Students repeating the course within the last three years can be exempted from the Laboratory Component of the Course if a grade of 80% or higher was obtained. Such students must contact the Chemistry Undergraduate Program Administrator, Ms Jin Meng, in the Chemistry Main Office, SA 229 before the add drop date. The Laboratory manual is available on the course website. You must consult the online Laboratory Manual, print out the portion of the manual for the wet experiment you will be doing, complete the pre-laboratory assignment prior to attending any of your scheduled lab periods. Students wearing inappropriate laboratory attire or with incomplete pre-laboratory assignments will not be permitted to conduct experiments for safety reasons (see online Laboratory manual for details). The grade for each experiment will be based on your pre-laboratory assignment, lab quiz, your performance in the laboratory, and the required experimental report. When attending your laboratory orientation you also are required to bring a printout of your most up to date timetable.

12. **TUTORIALS AND TUTORIAL QUIZZES:** Tutorials will begin on Monday, January 12<sup>th</sup>, 2015. Please see the course website for tutorial and quiz topics. If it is necessary to reschedule a tutorial quiz, the approval must be obtained from the Course Coordinator.
13. **OPTIONAL MATERIALS:** Students may participate in interactive questioning during lectures (**Top Hat**). This will be described in detail on the first day of class.
14. **FURTHER READING:** The Undergraduate Reserve Reading Room of the University Library has available a number of reference texts. Many of these are general chemistry texts, but some deal with more specific topics such as problem solving, environmental chemistry, or analytical chemistry. The Bookstore also normally stocks several paperbacks dealing with chemistry problems and methods of solution (e.g. Schaum's Outlines - College Chemistry, Rosenberg and Epstein).

#### 15. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- (a) **ACADEMIC MISCONDUCT:** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under K. Student Misconduct (<http://www.ucalgary.ca/pubs/calendar/current/k.html>) to inform yourself of definitions, processes and penalties.
- (b) **ACADEMIC INTEGRITY:** Do you know what "honesty in academics" is? Check the University website at: <http://www.ucalgary.ca/honesty/>
- (c) **ASSEMBLY POINTS:** in case of emergency during class time. Be sure to FAMILIARIZE YOURSELF with the information at <http://www.ucalgary.ca/emergencyplan/assemblypoints>.
- (d) **ACADEMIC ACCOMMODATION POLICY.** Students with documentable disabilities are referred to the following links: Calendar entry on students with disabilities: <http://www.ucalgary.ca/pubs/calendar/current/b-1.html> and Student Accessibility Services:

<http://www.ucalgary.ca/access/>

- (e) **SAFEWALK:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call **220-5333** for assistance. Use any campus phone; emergency phone or the yellow phones located at most parking lot pay booths.
- (f) **FREEDOM OF INFORMATION AND PRIVACY:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, **students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page.** For more information see also: <http://www.ucalgary.ca/secretariat/privacy>.
- (g) **STUDENT UNION INFORMATION:**  
 VP Academic: **Phone:** 220-3911, **Email:** [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca).  
 SU Faculty Rep: **Phone:** 220-3913, **Email:** [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca)  
 Website: <http://www.su.ucalgary.ca/>  
 Student Ombudsman: <http://www.su.ucalgary.ca/page/quality-education/academic-services/student-rights>
- (h) **INTERNET and ELECTRONIC COMMUNICATION DEVICE Information.** You can assume that in all classes that you attend, **your cell phone should be turned off.** Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.

Department Approval: Approved by Department Head

Date: 1 December 2014

Associate Dean's Approval for  
 Out of regular class-time activity: Approved by Associate Dean

Date: 8 December 2014