UNIVERSITY OF CALGARY
FACULTY OF SCIENCE
DEPARTMENT OF CHEMISTRY
COURSE OUTLINE
FALL 2016

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

Lecture Sections:

LEC	DAY	TIME	ROOM	INSTRUCTOR	OFFICE	PHONE	EMAIL	OFFICE HOURS
L01	TR	14:00-15:15	SB103	Dr. A. Musgrove Richer	SA 144F	220-2745	amanda.musgroveriche@ucalgary.ca	TBA
L02	TR	12:30-13:45	SB103	Dr. V. Mozol	SA 144E	210-8458	vjmozol@ucalgary.ca	TBA
Course Coordinator:				Dr. A. Musgrove Richer	SA 144F	220-2745	amanda.musgroveriche@ucalgary.ca	TBA
Lab / Tutorial Coordinator:				Dr. R. Jackson	SA 156	220-8274	rjjackso@ucalgary.ca	TBA

Course website can be reached via the course management system, D2L.
Departmental Office: SA 229, 220-5341, chem.undergrad@ucalgary.ca

2. Prerequisites: Chemistry 30 (or Continuing Education - Introduction to Chemistry) and one of Math 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. In determining the overall grade in the course the following weights will be used:

Tutorial Assignments (9)	20%	
Laboratory experiments (5)	20%	
Midterm Examination	20%	(Wednesday October 19, 2016)
Final Examination	40%	(To be scheduled by the Registrar)

In order to achieve the prerequisite requirements (i.e., C-), a student must meet ALL of the following requirements:

(1) submit no less than three of the laboratory reports,
(2) achieve a minimum 50% in the laboratory component
(3) achieve a minimum 50% in the tutorial component, and
(4) achieve a minimum 50% weighted average on the examinations (Midterm and Final).

This means that if a student scores below 50% in either the laboratory, tutorial, or the examinations, then the maximum grade they can obtain in CHEM 209 is a D+.

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:

A+	A	A-	B+	B	B-	C+	C	C-	D+	D	F
92.0%-100%	86.0%-91.9%	82.0%-85.9%	78.0%-81.9%	74.0%-77.9%	70.0%-73.9%	66.0%-69.9%	62.0%-65.9%	58.0%-61.9%	54.0%-57.9%	50.0%-53.9%	< 50%

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. It is the student's responsibility to familiarize himself/herself with these regulations. See also Section E.6 of the University Calendar.

5. Scheduled out-of-class activities: There will be a common Midterm Examination for all lecture sections on Wednesday October 19, 2016 from 7-9 PM. Rooms will be announced.

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY. If you have a clash with this out-of-class-time-activity, please inform your instructor as soon as possible so that alternative arrangements may be made for you.

6. **Course Materials:** Textbook: *Chemistry: The Molecular Nature of Matter and Change*, 2nd Canadian Ed.; Silberberg M, Amateis P, Lavieri S, Venkatsewaran R, 2016, McGraw-Hill Ryerson. Course content and order of chapters/topics to be covered are indicated on D2L.

7. **Examination Policy**: Students must use the Schulich School of Engineering sanctioned calculator for quizzes, tests, and examinations. Students should also read the Calendar, Section G, on Examinations.

8. **Approved Mandatory and Optional Course Supplemental 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 they have a complete set of usable glassware. By signing for check-in, a student agrees that they are 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. All students, even those who withdraw early from the course must check out of the laboratory before the last day of lectures. Any student 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.

9. **Writing across the curriculum statement:** For all components of the course, the quality of a student's writing in any written work will be a factor in the evaluation. See also Section E.2 of the University Calendar.

10. **Human studies statement:** If you consent, your course work may be used for research purposes once the course is over. Your responses will remain anonymous and confidential. Grouped data (no individual responses) may be used in academic presentations and publications. Participation in such research is voluntary and will not influence grades in this course. Students' signed consent forms will be withheld from instructors until after final grades are submitted. More information will be provided at the time student participation is requested. See also Section E.5 of the University Calendar.

11. **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. **You must complete the Safety Course before the first 'wet' experiment**, or you will 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 pre-laboratory activities, quizzes and exams. A link to the safety course is provided on the course D2L site.

12. **Laboratory Information:** Laboratory orientation begins the week of September 12th, 2016 with check-in for those in odd-numbered lab sections. Laboratory orientation begins the week of September 19th, 2016 for those in even-numbered laboratory sections. Consult your Student Centre schedule for exact times and room assignments. The Laboratory manual is available on the course D2L site.

    Laboratory Coats can be purchased in the University Bookstore. Please make sure to be properly dressed (see the course website for guidelines) and to bring your lab coat to the laboratory; no student will be permitted to do experimental work without a protective coat. We provide safety glasses/goggles and gloves.

    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 in the lab component. Such students must contact the Chemistry Undergraduate Program Administrator, Jin Meng, in the Chemistry Main Office, SA 229, before the add/drop date.

    You must consult the online Laboratory Manual, print out the portion of the manual for the wet experiment you will be doing, and complete the pre-laboratory assignment prior to attending any of your scheduled lab periods. Students wearing inappropriate laboratory attire or with incomplete prelaboratory 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, pre-lab quiz, your performance in the laboratory, and the required experimental report. If you are unable to attend your regularly scheduled laboratory session, permission from the lab coordinator must be obtained in order to attend an alternate section. Instructions and information on required supporting documentation is available on the course website.

13. **Tutorials and Tutorial Quizzes**: Tutorials will begin on Monday, September 19, 2016. Please see the course D2L site for tutorial and quiz topics. If it is necessary to reschedule a tutorial quiz, approval must be obtained from the Course Coordinator. Appropriate supporting documentation (for example a doctor's not in case of illness) may be required.

14. **Optional Materials:** Students may participate in interactive questioning during lectures (Top Hat). This will be described in detail on the first day of class.

15. **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).

16. **OTHER IMPORTANT INFORMATION FOR STUDENTS:**

(a) Misconduct: 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 Section K. Student Misconduct to inform yourself of definitions, processes and penalties.

(b) Assembly Points: In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on assembly points.

(c) Academic Accommodation Policy: Students needing an Accommodation because of a Disability or medical condition should contact Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities available at http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf. Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Associate Head of Chemistry, Dr. Farideh Jalilehvand, by email ahugchem@ucalgary.ca or phone (403) 220-5353.

(d) 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.

(e) 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.

(f) Student Union Information: VP Academic Phone: 403 220-3911 Email: suvpaca@ucalgary.ca
SU Faculty Rep. Phone: 403 220-3913 Email: science1@su.ucalgary.ca, science2@su.ucalgary.ca and science3@su.ucalgary.ca;
Student Ombuds Office: 403 220-6420 Email ombuds@ucalgary.ca http://ucalgary.ca/provost/students/ombuds

(g) Internet and Electronic Device Information: You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. 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.

(h) U.S.R.I.: At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.

Department Approval: Approved by Department Head Date:

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