



REVISED COURSE OUTLINE FOR REMOTE LEARNING

To account for the necessary transition to remote learning from March 13 onward, adjustments have been made to assessment deadlines and requirements so that all coursework tasks are in line with the necessary and evolving health precautions for all involved (students and staff). If you are unable to meet the deadlines or requirements specified, please connect with your course instructor to work out alternative dates/assessments.

1. **Course:** CHEM 209, General Chemistry For Engineers - Winter 2020

Coordinator(s)

Name	Email	Phone	Office	Hours
Dr. Amanda Musgrove	amanda.musgrove@ucalgary.ca	403 220-2745	SA 144F	TBA - see D2L

Section(s)

Lecture 01: TR 12:30 - 13:45 - Remote Learning (check with your instructor or coordinator for details)

Instructor	Email	Phone	Office	Hours
Dr. Roxanne Jackson	rjjackso@ucalgary.ca	403 220-8797	SA 258	Please see D2L

Lecture 02: TR 08:00 - 09:15 - Remote Learning (check with your instructor or coordinator for details)

Instructor	Email	Phone	Office	Hours
Dr. Amanda Musgrove	amanda.musgrove@ucalgary.ca	403 220-2745	SA 144F	TBA - see D2L

Course & Exam Coordinator: Dr. Amanda Musgrove (amanda.musgrove@ucalgary.ca)

Laboratory & Tutorial Coordinator: Dr. Roxanne Jackson (rjjackso@ucalgary.ca)

For concerns with course scheduling, course content, quizzes, and exams: please contact the Course Coordinator. For concerns with missed labs or tutorials, lab or tutorial scheduling, or teaching assistants: please contact the Laboratory Coordinator.

Course Start Dates:

Laboratories start **January 13, 2019** (for odd-numbered lab sections).

Tutorials start **January 20, 2019** (for all tutorial sections).

Please check your Student Centre schedule for lecture, lab, and tutorial meeting times.

Course Site:

D2L: CHEM 209 L01-(Winter 2020)-General Chemistry For Engineers

Note: Students must use their U of C account for all course correspondence.

2. **Requisites:**

See section [3.5.C](#) in the Faculty of Science section of the online Calendar.

Prerequisite(s):

Chemistry 30 (or Continuing Education - Chemistry 2) and one of Mathematics 30-1 or Mathematics 2 (offered by Continuing Education).

Antirequisite(s):

Credit for Chemistry 209 and any of 201, 203, 211, 213 and 301 will not be allowed.

3. **Grading:**

The University policy on grading and related matters is described in [F.1](#) and [F.2](#) of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Students will have a choice between two grade schemes: OPTION A & OPTION B as outlined below:

Component(s)	OPTION A Weighting %	OPTION B Weighting %	Date
Tutorial Assignments (10)	25%	30%	Weekly 6 - completed in-person before March 16, 2020 4 - completed online post March 16, 2020
Laboratory Experiments (4)	20%	25%	Biweekly 3 - completed in-person before March 16, 2020 1 - completed online post March 16, 2020
Midterm Examination (1)	35%	25%	Mar 5, 2020 - Completed in-person.
Final Examination (1)	20%	20%	To be completed online. Available starting 3:00 PM MDT, April 20, 2020 Ending 3:00 PM MDT, April 21, 2020.

Either Option A **or** Option B can be used to calculate final grades; whichever is to the benefit of the student's overall grade.

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows.

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Minimum % Required	92.0 %	86.0 %	82.0 %	78.0%	74.0%	70.0 %	66.0 %	62.0%	58.0%	54.0 %	50.0 %

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

1. Achieve a minimum 50% in the laboratory component **and**
2. Submit the worksheets or quizzes for no less than seven of the ten graded tutorial activities **and**
3. Achieve a minimum 50% in the tutorial component **and**
4. Achieve a minimum 45% 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 **OR** does not complete more than three tutorials, then the maximum grade they can obtain in CHEM 209 is a D+.

4. Missed Components Of Term Work:

The University has suspended requirements for students to provide evidence for reasons for absences so please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations. Please let your instructor know immediately if you are ill and cannot meet the deadlines specified.

Online components (scheduled Mar 16 and onward):

If a student is unable to meet a due date for graded course component, they should **email** their instructor and/or course coordinator to make them aware as soon as possible, or at the latest **within 2 business days** of the missed due date. An adjusted due date or alternate assessment will be arranged, or the assessment excused, at the discretion of the coordinator.

Regular components (scheduled prior to Mar 16):

There are **no deferred midterm** examinations. If a student is unable to write the exam due to illness, domestic affliction, or an excusable absence as agreed on by the course instructor, the weighting of the exam may be transferred to the final exam, at the discretion of the course instructor. Policies for excusable absences, notification, and documentation are provided below.

There is no make-up lab section in CHEM 209. **Fomissed labs or tutorials** due to an 'excusable' reason (illness, Varsity sports, etc) as agreed upon by the laboratory coordinator, the student may be able to complete the lab or tutorial in an alternate section (space permitting, and at the discretion of the coordinator), or other arrangement as agreed on by the coordinator. Labs to be completed in an alternate section must be completed in the same two-week "cycle" as the original experiment. Tutorials to be completed in an alternate section must be completed within the same week as the original missed tutorial. Policies for excusable absences, notification, and documentation are the same as for exams below - note also the course policies on minimum number of labs and tutorials completed in Section 3.

In the event that a student has missed a midterm, lab, tutorial, or any graded course work: an unscheduled absence must be reported to the laboratory or course coordinator **within 48 hours** of the missed event. An original (i.e. no electronic or photo-copies) medical note, statutory declaration, or equivalent documentation confirming the reason for the absence must be provided to the course instructor **within 10 business days** of the original absence in order to be considered for an excused absence. For labs and tutorials: there is a "missed lab" and "missed tutorial" form on D2L that must be used to notify the coordinator of an absence. For midterm exams: please email the course coordinator directly.

If the midterm, a laboratory, tutorial, or other graded course component will be missed due to a course conflict, scheduled medical appointment, religious observance, Varsity sports competition, or other protected grounds: students must provide notice and submit supporting documentation **no less than 10 business days before** the exam or lab. For labs and tutorials: there is a "missed lab" and "missed tutorial" form on D2L that must be used to notify the coordinator of an absence. For midterm exams: please email the course coordinator directly.

Failure to provide timely notice and/or appropriate documentation to support an absence; or absences for nonexcusable reasons (e.g. vacation, improper lab attire), will result in a grade of 0 for the missed course component.

Absences for final examinations are handled through the [Registrar's office](#).

5. Scheduled Out-of-Class Activities:

The following out of class activities are scheduled for this course.

Activity	Location	Date and Time	Duration
Midterm exam	TBA	Thursday, March 5, 2020 at 7:00 pm	2 Hours

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY. If you have a conflict with the out-of-class-time-activity, please contact your course coordinator/instructor no later than **14 days prior** to the date of the out-of-class activity so that alternative arrangements may be made.

Room assignments will be posted on the course D2L site before the date of the exam.

If you have an academic conflict with the CHEM 209 midterm as scheduled above, contact the course coordinator as soon as possible (**no later than 10 business days prior to the exam**) with a copy of your schedule for that week so that an alternative arrangement may be made. Non-academic conflicts (e.g. work shifts) are not generally eligible for accommodation.

6. Course Materials:

Recommended Textbook(s):

Silberberg M, Amateis P, Lavieri S, Venkateswaran R, *The Molecular Nature of Matter and Change, 2nd Canadian Ed.*: McGraw-Hill Ryerson.

Required laboratory materials:

- Approved lab coat
- CSA-approved safety glasses/goggles with side shields

You will also need a non programmable scientific calculator (Schulich-approved) for use in exams and tutorials.

7. Examination Policy:

The final exam will be open-book (use of course notes, text allowed), but must be completed individually.

All tutorial quizzes and the midterm exam are closed-book. Students must use only a Schulich School of Engineering approved, non programmable calculator for the midterm exam and tutorial quizzes. A Data Sheet is provided with the quiz or exam - no other aids are allowed on these assessments.

Any student with academic accommodations must be registered with Student Accessibility Services (see Section 12(f) below), and have reviewed their accommodations as described on the SAS documents with the course coordinator within the first 15 days of the semester or at least 10 business days before any scheduled activity for which accommodations are required.

Students should also read the Calendar, [Section G](#), on Examinations.

8. **Approved Mandatory And Optional Course Supplemental Fees:**

Laboratory Breakage Fees and Locker Check-out:

Due to the mid-semester transition to online learning, laboratory checkout is not required this semester. No fees will be assessed for either breakage or failure-to-checkout.

9. **Writing Across The Curriculum Statement:**

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section [E.2](#) of the University Calendar.

10. **Human Studies Statement:**

If you agree, your course work may be used for research purposes. 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. **Reappraisal Of Grades:**

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See [Section I.3](#) of the University Calendar.

a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **ten business days** of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections [I.1](#) and [I.2](#) of the University Calendar

b. **Final Exam:** The student shall submit the request to Enrolment Services. See [Section I.3](#) of the University Calendar.

To request reappraisal of a **laboratory report**, students should send an email to the laboratory coordinator detailing (1) which report they would like reassessed (2) the details of what sections or components warrant reassessment, and why.

To request reappraisal of a **tutorial quiz or midterm exam**, students should send an email to the course coordinator detailing (1) which assessment they would like reassessed (2) the details of what sections or components warrant reassessment, and why. If this was an in-person quiz that was returned, a scan of the unaltered, "as-returned" original assessment should be included.

12. **Other Important Information For Students:**

a. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, [Mental Health Services Website](#)) and the Campus Mental Health Strategy website ([Mental Health](#)).

b. **SU Wellness Center:** The Students Union Wellness Centre provides health and wellness support for students including information and counselling on physical health, mental health and nutrition. For more information, see www.ucalgary.ca/wellnesscentre or call [403-210-9355](tel:403-210-9355).

c. **Sexual Violence:** The University of Calgary is committed to fostering a safe, productive learning environment. The Sexual Violence Policy (<https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>) is a fundamental element in creating and sustaining a safer campus environment for all community members. We understand that sexual violence can undermine students' academic success and we encourage students who have experienced some form of sexual misconduct to talk to someone about their experience, so they can get the support they need. The Sexual Violence Support Advocate, Carla

Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email (svsa@ucalgary.ca) or phone at [403-220-2208](tel:403-220-2208) .

- d. **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. Examples of academic misconduct may include: submitting or presenting work as if it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/ fabrication of experimental values in a report. **These are only examples.**
- e. **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).
- f. **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 [procedure-for-accommodations-for-students-with-disabilities.pdf](#).

Students needing an accommodation in relation to their coursework or to fulfill 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 the Department of Chemistry, Dr. Farideh Jalilehvand by email ahugchem@ucalgary.ca or phone 403-220-5353. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See [Section E.4](#) of the University Calendar.

- g. **Safewalk:** Campus Security will escort individuals day or night (See the [Campus Safewalk](#) website). Call [403-220-5333](tel:403-220-5333) for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- h. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPPA). 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 [Legal Services](#) website.
- i. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](tel:403-220-3911) Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: [403-220-3913](tel:403-220-3913) Email: sciencerep@su.ucalgary.ca. [Student Ombudsman](#), Email: ombuds@ucalgary.ca.
- j. **Internet and Electronic Device Information:** Unless instructed otherwise, cell phones should be turned off during class. All communication with other individuals via laptop, tablet, smart phone or other device is prohibited during class unless specifically permitted by the instructor. Students that violate this policy may be asked to leave the classroom. Repeated violations may result in a charge of misconduct.
- k. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction ([USRI](#)) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.
- l. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or [non-academic misconduct](#), in addition to any other remedies available at law.

Laboratory Information:

Laboratory activities will begin the week of January 13 with checkin for odd numbered lab sections. Checkin begins January 20th for even-numbered lab sections. *You may have to attend lab before your first scheduled lecture.*

It is mandatory that students wear a lab coat and safety glasses and proper attire at all times in the lab. Students wearing inappropriate laboratory attire will not be permitted to conduct experiments for safety reasons. The manual can be found online (course D2L site). You must consult the online laboratory manual prior to attending any of your scheduled lab periods and print out the required portion of the manual that outlines the procedures you will be doing.

Any student with academic accommodations that may impact their ability to perform experiments or submit lab reports in the time and format required must be registered with Student Accessibility Services (See Section 12(f) above) and have reviewed their accommodations as described on the SAS documents with the laboratory coordinator within the first 15 days of the semester or at least 10 business days before any scheduled activity for which accommodations are required.

Students **repeating the course within the last two years** can be exempted from the Laboratory Component of the Course if a grade of 75% or higher was obtained. The lab grade achieved on the previous attempt will be carried forward. Such students must contact the Chemistry Undergraduate Program Administrator in the Chemistry Main Office, SA 229 before the drop date (**January 23, 2020**).

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 laboratory experiment.** A link to the safety course is found on the course D2L site. 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 pre-labs and exams. Students who have previously completed the Chemistry Safety Course at the University of Calgary in the past five years are NOT required to repeat it.

Course Outcomes:

- Identify factors that affect reaction rate, depict reaction rate with symbols, and explain rates at the molecular level
- Identify factors that affect reaction extent, depict reaction extent with symbols, and explain extent at the molecular level
- Recognize how different reactions behave for key examples of acids & bases, solubility, electrochemistry
- Connect atomic and chemical properties with the electronic structure of atoms, molecules, and ions and between these species
- Develop an appreciation for why these aspects of chemistry are important to engineers
- Apply good laboratory practice

Electronically Approved - Mar 23 2020 07:58

Department Approval

Electronically Approved - Mar 23 2020 08:46

Associate Dean's Approval for alternate final examination arrangements or remote learning and out of regular class-time activity