UNIVERSITY OF CALGARY
FACULTY OF SCIENCE

Department of Chemistry
Science A 229
403 220-5381
chem.info@ucalgary.ca

COURSE OUTLINE

1. **Course:** CHEM 351, Organic Chemistry I - Fall 2020

Coordinator(s)

Name	Email	Phone	Office	Hours
Dr Ashley Causton	acauston@ucalgary.ca	403 210-3968	SA 144A	TBA
Dr. Ian Hunt	irhunt@ucalgary.ca	220-6430	SA 144G	By email

Section(s)

Lecture 01: MWF 09:00 - 09:50 - Online

Instructor	Email	Phone	Office	Hours
Dr Jeffrey Van Humbeck	jeffrey.vanhumbec1@ucalgary.ca	220-3039	SB 229A	TBA

Lecture 02: MWF 10:00 - 10:50 - Online

Instructor	Email	Phone	Office	Hours
Dr Ashley Causton	acauston@ucalgary.ca	403 210-3968	SA 144A	TBA

Lecture 03: MWF 11:00 - 11:50 - Online

Instructor	Email	Phone	Office	Hours
Dr Chang-Chun Ling	ccling@ucalgary.ca	403 220-2768	SB 235	TBA

Laboratory Coordinator:	Email	Phone	Office	Hours
Dr. Ian Hunt	irhunt@ucalgary.ca	403-220-6430	SA 144G	By email

Online Delivery Details:

Some aspects of this course are being offered in real-time via scheduled meeting times. For those aspects you are required to be online at the same time.

Each course component will be described in more detail at the beginning of the course.

- **Lectures start Wednesday 9th September.** Lecture material will be delivered as a series of vignettes that can be viewed asynchronously via D2L and follow a prescribed schedule. Lecture time slots are reserved for instructor virtual office hours and/or Q&A sessions.
- **Tutorials start Monday 14th September.** Tutorials follow a weekly time line and can be accessed online. There are five assigned quizzes during the term that are to be taken during the assigned tutorial time. During non-quiz weeks the tutorial material can be accessed in an asynchronous manner.
- **Laboratory starts Monday 21st September.** Laboratory "experiments" are online. Your laboratory TA will lead the session during your scheduled laboratory time.

Course Site:

D2L: CHEM 351 ALL-(Fall 2020)-Organic Chemistry I

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 201 or 211; and 203 or 213.

Antirequisite(s):
Credit for Chemistry 351 and 357 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:

Course Component	Weighting (%)	Date
Midterm Examination #1	20	Open on Thursday October 15th 2020 (Asynchronous)
Midterm Examination #2	20	Open on Wednesday November 18th 2020 (Asynchronous)
Laboratory	20	Start Monday September 21st 2020 (Synchronous)
Five Tutorial Quizzes (each worth 3%)	15	See tutorial schedule for times (tutorial assignments are synchronous) (non-assignment weeks are asynchronous)
Final Examination	25	Scheduled by Registrar - December (Asynchronous)

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	95 %	90 %	85 %	80%	75%	70 %	65 %	60%	55%	50 %	45 %

This course has a registrar scheduled final exam.

For any synchronous assessment, time will be adjusted for SAS students if needed and accommodations for students will be done on a case-by-case basis.

1. A minimum 50% on the laboratory is required in order to satisfy the prerequisite requirement (i.e. C-) for further Science courses.

2. A minimum 50% weighted average on the examinations (MT's & FIN) **or** minimum 50% on the Final is required in order to satisfy the prerequisite requirement (i.e. C-) for further Science courses or better.

3. Notes 1. and 2. mean that if a student scores below 50% in either the laboratory or the examination component, then the maximum course letter grade they can obtain in Chem 351 is a D+.

4. Each midterm examinations is to be written as an asynchronous activity within a 24 hour window. Each midterm examination is split into two parts. Part one is multiple choice, is a total of 60 minute in length (40 minutes examination time plus 20 minutes "technology time") and is administered via the course MOODLE online system; submission of part one will unlock part two of the exam which consists of written answer questions which are to be completed on paper (or electronically) and submitted to the relevant dropbox on the course D2L site within one hour of beginning this part of the examination (40 minutes examination time plus 20 minutes "technology time").

5. The coursework mark is based on five equally weighted tutorial assignments that are to be completed synchronously during your registered tutorial time. Check the D2L site for the planned schedule. These tutorial assignments run for a total of 60 minutes (40 minutes assignment time and 20 minutes "technology" time).

6. Laboratory time consists of synchronous activities, and may also consist of quizzes and/or laboratory reports, some of which may be worked on asynchronously and have a due date to be handed in for graded. See the laboratory manual for the schedule of experiments and expectations.

7. Students are not permitted to share or re-post materials from the course, including exam questions (see 12(d) and 12(i)).

8. Exams and quizzes are to be completed entirely individually (see Section 7), without discussion or collaboration with others. For laboratory assignments, students are welcome to discuss the content with peers, TAs and course instructors, as well as consult any references of your choosing. However, all submitted work must be **written individually and in your own words**. To avoid the risk of plagiarizing accidentally from other sources (*including a peer, the internet, or your instructor's notes*), consider taking rough notes from any source you consult, and then writing your answer while looking only at your notes and not the original reference. This strategy can help you avoid accidentally using phrases or wording that are not your own thinking.

9. Laboratory Exemptions. 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 on the lab portion. Students choosing to exempt from the lab should be aware that,

- the new online labs in Fall 2020 may be significantly different from prior labs in this course;
- the material covered in these online labs will be integrated into other course assessments; and,
- the lab grade achieved on the previous attempt will be carried forward.

Prior to applying for an exemption, students are encouraged to connect with their course instructor or coordinator to better understand the risks and benefits in their specific online course, as well as what access they will (or will not) have to lab materials or feedback as an exempt student.

Students applying for a lab exemption should contact the Undergraduate Science Center (science.advising@ucalgary.ca) no later than Monday September 14th, 2020 to apply. Students registering in the course after this date should contact the USC as soon as possible if they wish to apply for an exemption.

4. **Missed Components Of Term Work:**

The university has suspended the requirement for students to provide evidence for absences. Please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator, or the course instructor if this course does not have a coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, then the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course.

1. A deferred examination will ONLY be provided for the Final Examination for which a student must apply through their student centre.

2. Absences from any midterm examinations must be reported to the course coordinator (Dr. Ashley Causton) within **48 hours** via email for an excused absence to be considered. If no notification is provided within the required 48 hour time frame, then a grade of zero will be assigned. If an excused absence is approved then your midterm examination grade will be prorated based on your scores in the other examinations.

3. Absences from any tutorial quizzes must be reported to the course coordinator (Dr. Ashley Causton) within **48 hours** via email for an excused absence to be considered. If an excused absence is approved, then you may be provide with an opportunity to make up the missed tutorial quiz. If no notification is provided within the required 48 hour time frame, then a grade of zero will be assigned. If an excused absence is approved then your tutorial grade will be prorated based on your scores in the other tutorial assignments.

4. Absences from any laboratory work must be reported to the laboratory coordinator (Dr. Ian Hunt) within **48 hours** via email for an excused absence to be considered. For missed laboratory work, students should attempt to make up an excused absence by attending a different laboratory time slot if possible.

5. **Scheduled Out-of-Class Activities:**

There are no scheduled out of class activities for this course.

6. **Course Materials:**

Textbook: No text book is required.
If you wish to purchase a textbook because it better suits your individual learning style, "Organic Chemistry - Mechanistic Patterns" by Ogilvie et. al. (published by Nelson) or "Organic Chemistry" by Jones (published by Norton) are good choices for our courses, otherwise consult your instructor.

Molecular Model kits: very strongly recommended to support your learning for the Fall 2020 asynchronous delivery course

Chemistry 351 "Laboratory Manual" can be found on the course D2L site.

Other supporting material can be found via the course D2L site.

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam/Camera (built-in or external);

- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Stable internet connection.

For more information please refer to the UofC ELearning online website.

7. **Examination Policy:**

   All examinations are common to all sections,*i.e.* students in L01, L02 and L03 write the same examinations. All the instructors are involved in determining content coverage, creating, selecting and reviewing examination questions, creating and reviewing grading rubrics and grading of student answers as well as reviewing the grades once collated.

   Any student with academic accommodations must be registered with Student Accessibility Services, and have reviewed their accommodations (as described on the SAS documents) with the course coordinator (ideally within the first 15 days of the semester or at least 7 days) before any scheduled activity for which accommodations are required.

   All examinations and tutorial quizzes are to be completed**individually**, without discussion or collaboration with others.

   In terms of allowed resources, examinations are "open book", which allows access to both on-line and text based resources. However, some types of questions will require answers that stay within the bounds of the course material from the lecture resources and the e-text: These questions will be clearly indicated in an examination.

   Students are directed to review the policy around academic misconduct before attempting any examination. The Student Handbook on Academic Integrity, available through the Student Success Center is an excellent resource.

   Students should also read the Calendar, Section G, on Examinations.

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

   There are no mandatory or optional course supplemental fees for this course.

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:**

    Students will not participate as subjects or researchers in human studies.

    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.

    c. Laboratory work, please see the Chem 351 F20 online student laboratory manual for details about laboratory work reappraisals. The appeal should be made first to your laboratory TA. If you need to appeal to the Laboratory Coordinator (Dr. Hunt), then you will need to provide the original work, a written statement (clearly stating the concern) and
    your UofC email contact information (all to be done within the 10 business day period). The Laboratory Coordinator will then take the work to review it and provide appropriate feedback via UofC email.

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 Services:** For more information, see www.ucalgary.ca/wellnesscentre or call 403-210-9355.

c. **Sexual Violence:** 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. The complete University of Calgary policy on sexual violence can be viewed at (https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf)

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. **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. Yuen-Ying Carpenter by email ahugchem@ucalgary.ca or phone 403-220-6908. 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.

f. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). 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.

g. **Student Union Information:** VP Academic, Phone: 403-220-3911 Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: 403-220-3913 Email: sciencerep@su.ucalgary.ca. Student Ombudsman, Email: ombuds@ucalgary.ca.

h. **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.

i. **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.

Course Outcomes:

- Recognize and employ the conventions of naming, structure drawing, and curved arrow pushing to communicate about organic compounds

- Draw reaction mechanisms with appropriate curved arrows to account for how bonds are made and broken in organic reactions
- Analyze the structural features of starting materials, reaction intermediates, and products to predict or rationalize their physical properties or reaction behaviour
- Identify and interpret spectral data to deduce the structure of simple organic molecules
- Perform laboratory experiments using techniques that are safe and appropriate for handling and manipulating organic compounds.
- Propose a short (ca. 1-4 step), feasible synthesis for the formation of a specific organic product using a limited number of possible reaction types: acid/base, radical substitution, nucleophilic substitution, or elimination reactions.

Electronically Approved - Sep 17 2020 11:31

Department Approval