

COURSE OUTLINE

1. Course: CHEM 351, Organic Chemistry I - Spring 2021

Lecture 01: MW 09:00 - 11:45 - Online

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

Online Delivery Details:

This course does not follow a scheduled meeting pattern.

This course has a registrar scheduled, synchronous final exam. The writing time is 2 hours + 50% buffer time.

Lecture material will be delivered as a series of modules that can be viewed asynchronously via D2L and follow a prescribed schedule. In a typical week, at least one hour in lecture time slot (usually Monday) will be used by the instructor for discussions/seminar/Q&A sessions; this session will be recorded. Students are expected to work through the modules and to be current before the weekly synchronous discussion/seminar session. A schedule of progression will be available to help guide your studies.

Tutorials and "In-Class" Assignments follow a weekly time line and can be accessed online. **Tutorial** activities are administered using the Moodle learning management system (which is superior to D2L for organic chemistry related activities). The learning and practice materials on Moodle follow a prescribed schedule and can be accessed in an asynchronous manner: There are no scheduled synchronous Zoom based activities during tutorial time-slots (on a Friday). The coverage details and schedule for the weekly **assignments** (which are based on the tutorial material from the previous week) can be found on the course Moodle and D2L sites. **There are five synchronous, online assignments during the semester that are to be completed (using Moodle) during the Wednesday "lecture" time slot (usually starting at 10:30am).**

Laboratory starts Monday May 10, 2021. Laboratory activities are synchronous online Zoom sessions during your registered laboratory time. It is envisaged that the laboratory activities will each have a "primary graded activity" this might be a report, or it might be based on your answers to a set of questions. Laboratory reports will be submitted via a D2L Dropbox and will have due dates that will be specified for each activity. There are two typical models for due dates (1) end of the laboratory period or (2) one week after the laboratory period.

Examinations (MT during class time on Wednesday June 2nd & Final date TBA) will be delivered using Moodle and making use of the tools that Moodle has available. This means the examinations will be a hybrid of our normal tutorial assignments (CAL) and a conventional paper examination. The Final examination will be cumulative and based potentially on all components of the course (lecture, tutorial and laboratory content).

Communication We will use the course D2L site and class emails as the primary methods for course related information. Students are responsible for reading these to ensure they are aware of the items within those messages and know how it impacts their course work. Not being aware of information in such messages is not an acceptable excuse for failing to complete work on time. All emails sent to the course coordinator, instructor or TAs about course related issues MUST come from a UofC email address. Make sure you specify "Chem 351". We will attempt to reply to emails within one business day (i.e. excluding weekends and holidays) whenever possible.

Course Site:

D2L: CHEM 351 L01-(Spring 2021)-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:

Component(s)	Weighting %	Date
Five tutorial assignments	20% (5 x 4%)	Five Wednesdays throughout the semester (synchronous)
Laboratory	20%	Start May 10th 2021 (synchronous)
Midterm Exam	25%	Wednesday June 2nd 2021 (synchronous - in-class)
Final Exam	35%	Registrar scheduled TBA (synchronous)

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 will have a final exam that will be scheduled by the Registrar. [The Final Examination Schedule](#) will be published by the Registrar's Office approximately one month after the start of the term. The final exam for this course will be designed to be completed within 2 hours.

The final exam will be administered using an on-line platform. Per section [G.5](#) of the online Academic Calendar, timed final exams administered using an on-line platform, such as D2L, will be available on the platform. Due to the scheduling of the final exams, the additional time will be added to **the end** of the registrar scheduled **synchronous** exam to support students. This way, your exam schedule accurately reflects the **start time** of the exam for any **synchronous** exams. E.g. If a **synchronous** exam is designed for 2 hours and the final exam is scheduled from 9-11am in your student centre, the additional time will be added to the **end** time of the **synchronous** exam. This means that if the exam has a 1 hour buffer time, a synchronous exam would start at 9 am and finish at 12pm.

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

3.2. 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.

3.3. Notes 3.1 and 3.2 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+.

3.4. Examinations are to be written as synchronous online activities. The midterm is 110 minutes in length (165 minutes including 50% technology buffer), and final is scheduled to be 120 minutes writing time (180 minutes including 50% technology buffer).

3.5. Students are expected to provide answers that are consistent with the course content / syllabus and based on the content of the lecture modules and the etext.

3.6. 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 previously on the laboratory portion. Students choosing to exempt from the laboratory should be aware that, the new online labs in Spring 2021 may be significantly different from prior laboratory activities in this course; the material covered in these online laboratory activities will be integrated into other course assessments; and, the laboratory grade achieved on the previous attempt will be carried forward. Prior to applying for an exemption, students are encouraged to connect with their course 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 laboratory 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 May 10th 2021 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.

3.7. Laboratory time consists of seven 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 grading. See the laboratory manual for the schedule of experiments and expectations. The laboratories occur during the five "whole weeks" of the course (two of the weeks have two "experiments" and three of the weeks contain one

experiment, for a total of seven experiments).

3.8. For any synchronous assessment (e.g. tutorial assignments, examinations) students with scheduling issues (e.g. different time zones, caregiving responsibilities, ability to secure an appropriate test-taking environment can request accommodations by emailing the course coordinator at least 5 business days prior to the activity. Such requests will be reviewed on a case-by-case basis.

3.9. Students registered with Student Accessibility Services will have the applicable accommodations specified in their accommodation letters applied to time limited activities associated with tutorials, the laboratory component and/or examinations provided the SAS letters are available within 5 business days of the activity. If the accommodations change during the semester, the student will need to let the course coordinator know of the change.

3.10. Students are not permitted to share or re-post ANY materials from the course, including examination or assignment questions. They are protected by copyright.

3.11. Examinations, assignments and quizzes etc. are "open book", however they MUST be completed entirely individually (see Calendar Section G), 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, unless it is clearly stated otherwise, we expect and require that laboratory reports / graded activities 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 own version.

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, one possible arrangement is that the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course. This option is at the discretion of the coordinator and may not be a viable option based on the design of this course.

4.1 A deferred examination will ONLY be provided for the Final Examination for which a student must apply through their student centre. There are no deferred midterms.

4.2 Absence from the midterm examination must be reported to the course coordinator (Dr. 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 score in the final examination.

4.3 If you need to reschedule a tutorial assignment in advance, please contact the course coordinator (Dr. Causton) a minimum of **24 hrs before** the scheduled tutorial quiz. Unexpected absences from any tutorial assignments must be reported within **48 hours** via email for an excused absence to be considered. If an excused absence is approved, then you may be provided with an opportunity to make up the missed tutorial quiz (one request / student / semester is normally possible). 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.

4.4 Absences from any laboratory work must be reported to the laboratory coordinator (Dr. Causton) 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 textbook is required. There is an excellent online course textbook that is available for Chem 351 and 353:Organic Chemistry etext; the link to the etext can be found on the course D2L site. 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 Spring 2021 asynchronous delivery course and are available from the Bookstore.

Chemistry 351 "Laboratory Manual" 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:

Examinations, assignments and quizzes etc. are "open book", however they MUST be completed entirely individually (see Calendar Section G), without discussion or collaboration with others.

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:** See the Chem 351 P21 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. Causton), 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](tel: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](tel: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 integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity. Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional [Code of Conduct](#) and promote academic integrity in upholding the University of Calgary's reputation of excellence. Some examples of academic misconduct include but are not limited to: posting course material to online platforms or file sharing without the course instructor's consent; submitting or presenting work as if it were the student's own work; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; borrowing experimental values from others without the instructor's approval; falsification/fabrication of experimental values in a report. Please read the following to inform yourself more on academic integrity:

[Student Handbook on Academic Integrity](#)
[Student Academic Misconduct Policy](#) and [Procedure](#)
[Research Integrity Policy](#)

Additional information is available on the [Student Success Centre Academic Integrity page](#)

- 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, Undergraduate of the Department of Chemistry, Dr. Yuen-Ying Carpenter by email yyscarpe@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](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.

- 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
- Understand laboratory experimental data and explain observations.
- 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 - May 05 2021 16:32

Department Approval