



COURSE OUTLINE

1. **Course:** CHEM 559, Organic Spectroscopy - Fall 2020

Lecture 01: MWF 12:00 - 12:50 - Online

Instructor	Email	Phone	Office	Hours
Dr. Ian Hunt	irhunt@ucalgary.ca	220-6430	SA 144G	Tuesday tutorial times or by appointment via email

Course activities start on Wednesday Sept 9th 2020 (synchronous Zoom meeting Wed Sept 9th 12:00-12:50)

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.

Lectures : Hybrid

Course content will be made available through D2L as a series of narrated PowerPoint presentations for asynchronous use in conjunction with the course text book. These presentations will be created based around spectroscopic topics rather than based on 50 minute lecture slots and will be posted to D2L each week. At certain times, it is anticipated that "live" class discussions will be appropriate. These will happen synchronously in scheduled lecture times and will be recorded and posted to D2L. The intention is that such sessions will be announced on the day of the proceeding scheduled course activity time (because the need for such activities are often apparent based on previous work).

Friday lecture time slots will typically be used to administer synchronous quizzes (via Moodle, starting Friday Sept 18th 2020).

Tutorials : Hybrid

Tutorial times have always been about an opportunity to practice and ask questions. Therefore, practice materials will be made available for each tutorial session via D2L (e.g. question sheets) or Moodle (interactive questions) and these can be completed synchronously or asynchronously. Tutorial times will be a synchronous Zoom meeting for discussions and questions about course content and about the practice questions.

Course Site:

1. D2L: CHEM 559 L01-(Fall 2020)-Organic Spectroscopy
2. Moodle <https://moodle.ucalgary.ca/moodle/> Chem 559 (Fall 2020) Organic Spectroscopy (we will be using Moodle for interactive question activities, quizzes and examinations because it has a more versatile assessment tool and because of the experience we have using it in other courses. Moodle is free, and uses your normal UofC IT credentials).

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

I will endeavour to provide a reply to email within 2 business days.

2. **Requisites:**

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

Prerequisite(s):

Chemistry 351, and one of 353 or 355.

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
Final examination	30	Final exam period (synchronous, 3 hrs (Registrar scheduled))
Midterm I	15	24/9/2020 (synchronous, 18:30-20:00)
Midterm II	15	22/10/2020 (synchronous, 18:30-20:00)
Midterm III	15	26/11/2020 (synchronous, 18:30-20:00)
Quizzes	25 (each quiz equally weighted)	Friday weekly (synchronous, 12:00-12:50 starting Sept 18 2020)

- 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. Students are required to request any accommodations at least 7 business days prior to the activity.

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	95.00 %	85.00 %	80.00 %	75.00%	70.00%	65.00 %	60.00 %	55.00%	50.00%	45.00 %	40.00 %

The marks for each of the course components will be recorded as a numerical score. These numerical scores will be combined as shown above to arrive at the total numerical score which will then be converted to the letter grade that will be reported to the Registrar. In assigning the final course letter grade, the scale shown above will be used (e.g. A- starts at 80.00%, A at 85.00%)

This course has a registrar scheduled final exam.

Notes:

1. A minimum 50% simple/unweighted average on the examinations (midterms & final) **or** a minimum 50% on the Final is required in order to obtain a C- or better.
 2. All assessment activities are open paper book and are to be completed under exam conditions (see section 7).
 3. At the end of the semester, the two lowest quiz question scores on the weekly quiz will be automatically dropped (e.g. best 8 out of 10)
 4. All assessment activities (i.e. final, midterms and quizzes) will be online and administered via either D2L or Moodle.
 5. Midterms are scheduled based on 1 hr. to answer the questions plus the required 50% technology buffer time.
 6. Final examination is scheduled for 2 hrs to answer questions plus the required 50% technology buffer time.
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.

Notes:

1. The option to defer course work will **ONLY** be available for the Final Examination and then only with the *approval of the Associate Dean of Science* For details, see the [Registrar's Office](#).
2. Absences from any term work (midterms, quizzes etc.) must be reported to the course coordinator within 48 hrs (provide details explaining the reason via email). The Chem 559 course coordinator will review the information provided to make the decision, and keep it on record. Sufficient information must be provided to the course coordinator within 10 business days of the term work due date in order for an excused absence to be considered.

If an excused absence is approved for items of term work, then you will be awarded a grade for that piece of term work equal to your final examination grade. If the required information is not provided within the required

time frame, then a grade of zero will be assigned to the item of term work.

5. Scheduled Out-of-Class Activities:

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

Activity	Location	Date and Time	Duration
Midterm I	WEB-BASED	Thursday, September 24, 2020 at 6:30 pm	1.5 Hours
Midterm II	WEB-BASED	Thursday, October 22, 2020 at 6:30 pm	1.5 Hours
Midterm III	WEB-BASED	Thursday, November 26, 2020 at 6:30 pm	1.5 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.

Please contact the instructor and include a copy of your schedule if a conflict exists. *We are obliged to make alternate arrangements for you.*

If you have a conflict with an *out-of-class-time-activity in another course* with any scheduled component of Chem 559, then you should contact the course coordinator / instructor of *the other course* with the out-of-class activity. *They are obliged to make suitable alternate arrangements for you.*

6. Course Materials:

Recommended Textbook(s):

Pavia, Lampman, Kriz and Vyvyan, *Introduction to Spectroscopy (recommended for undergraduate students)*: Cengage.
Silverstein, Webster and Kiemle, *Spectrometric Identification of Organic Compounds" (recommended for graduate students, option 1)*: Wiley.
Crews, Rodriguez and Jaspars, *Organic Structure Analysis (recommended for graduate students, option 2)*: Oxford.

Technology requirements

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 Chem 559 examination and quiz activities are expected to be written **individually** and under examination conditions using the specified allowed resources.

There will be 3 out of class midterms 18:30-20:00: Thurs Sept 24 2020, Thursday Oct 22 2020, and Thursday Nov 26 2020.

See item 4 above related to deferred examinations.

"Exam conditions" : All examinations, quizzes *etc.* are open book, paper notes *etc.* Model kits and non-programmable calculators are allowed. Internet and online resources other than D2L or Moodle are not allowed.

Any student with academic accommodations must be registered with Student Accessibility Services (see Section 12(f) below), and have reviewed their accommodations (as described by the SAS documents) with the course coordinator within the first 15 days of the semester or a minimum of 7 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:**

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.

For example, it is important that "final answers" to questions are clearly identified and answered in the required and appropriate manner. Images need to be readable and clearly identified.

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.

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:** 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 (syva@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 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](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:

- Interpret and use the spectroscopic data from UV, MS, IR and NMR (including 2D) to be able to distinguish similar structures or deduce the structure of an unknown organic molecule.

Electronically Approved - Sep 03 2020 17:29

Department Approval

Electronically Approved - Sep 03 2020 19:14

Associate Dean's Approval