



UNIVERSITY OF CALGARY  
FACULTY OF SCIENCE  
DEPARTMENT OF CHEMISTRY  
COURSE OUTLINE

1. **Course:** CHEM 559, Organic Spectroscopy -- Fall 2018

Instructor Name	Email	Phone	Office	Hours
L01: ( MWF 12:00 - 12:50 in SA 124A)				
Ian Hunt	irhunt@ucalgary.ca	220-6430	SA144G	Open door

Course activities start on Friday Sept 7th 2018

**Course Site:**

D2L: CHEM 559 L01-(Fall 2018)-Organic Spectroscopy

**Department of Chemistry:**

Office: Science A 229

Phone: 403 220-5381

Email: chem.info@ucalgary.ca

**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 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	40	TBA (Registrar scheduled)
Midterms I, II and III	30 = (3 x 10%)	28/9/18, 26/10/18 & 23/11/18
Spectroscopy quizzes	30 (each quiz equally weighted)	weekly (Friday)

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
<b>Minimum % Required</b>	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% average on the examinations or minimum 50% on the Final is required in order to obtain a C- or better.

(2) All quizzes and examinations are open book and are to be completed under *exam conditions*.

#### 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/themself with these regulations. See also [Section E.3](#) of the University Calendar.

Deferred examinations will ONLY be provided for the Final Examination and then only with the *approval of the Associate Dean*.

Absences from any term work must be reported to the course coordinator within 48 hrs (email is fine). In the event that a student misses term work due to illness then an official medical note will be required. If a student misses the term work for other reasons, then analogous documentation will be required. The Chem 559 course coordinator will need to see the original documentation for review / decision and keep it (or a copy) for their records. The documentation must be provided to the course coordinator within 15 days of the date of the term work due date in order for an excused absence to be considered.

If an excused absence is approved for an item of term work, then you will be awarded a grade for that piece of term work equal to your final examination grade. If no such documentation is 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:

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

**REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.** If you have a conflict with an out-of-class-time-activity in another course with any component of Chem 559, then you should contact the course coordinator/instructor of the course with the out-of-class activity no later than **14 days prior** to the date of the out-of-class activity so that alternative arrangements may be made. 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 .

#### 7. Examination Policy:

All Chem 559 examinations and quizzes will be open book. Calculators are allowed. Laptops, smart phones, iPads and all other types of wireless devices are **not allowed**.

There will be 3 in-class midterms: Friday Sept 28 2018, Friday Oct 26 2018, and Friday Nov 23 2018.

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. Wireless devices and other electronic devices 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 on the SAS documents) with the course coordinator within the first 15 days of the semester or at least 10 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.

## 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.

1. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **15 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 immediately submit the Reappraisal of Graded Term work form to the department in which the course is offered. The department will arrange for a re-assessment of the work if, and only if, the student has sufficient academic grounds. See sections [I.1](#) and [I.2](#) of the University Calendar
2. **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:** 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](http://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](mailto: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](mailto: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 (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.
- i. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](tel:403-220-3911) Email: [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca). SU Faculty Rep., Phone: [403-220-3913](tel:403-220-3913) Email: [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca). Student Ombudsman, Email: [suvpaca@ucalgary.ca](mailto:suvpaca@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.

**Department Approval:**

Electronically Approved

**Date:** 2018-08-30 09:44

## 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.