



UNIVERSITY OF CALGARY
FACULTY OF SCIENCE
DEPARTMENT OF CHEMISTRY
COURSE OUTLINE

1. **Course:** CHEM 553, Bio-Organic Chemistry -- Winter 2018

Lecture 01: (TR, 12:30-13:45 in ST130)

Instructor Name	Email	Phone	Office	Hours
Chang-Chun Ling	ccling@ucalgary.ca	403-220-2768	SB235	TBA

Start date of Tutorials: January 10th, 2018.

Course Site:

D2L: CHEM 553 L01-(Winter 2018)-Bio-Organic Chemistry

Department of Chemistry: Science A 229, 403 220-5341, chem.info@ucalgary.ca

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

2. **Prerequisites:**

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

Chemistry 453.

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 %
Midterm Exam (Thu Mar 8th, 2018, 12:30-13:45)	20%
Final Exam (Scheduled by Registrar)	40%
Coursework	40%
Total	100%

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;

Letter Grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Minimum Percent Required	95	85	80	75	70	65	60	55	50	45	40

The marks for each of the course components will be recorded as numerical scores and combined as shown above to arrive at the total numerical score (we don't round) and then be converted to the letter grade that will be reported to the Registrar. In assigning the final course letter grade, the following scale will be used (e.g. A- starts at 80%, A at 85%):

A+	95	A	85	A-	80	B+	75	B	70	B-	65	C+	60	C	55	C-	50	D+	45	D	40	F
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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 with these regulations. See also [Section E.3](#) of the University Calendar

There are no deferred Midterm/ term test examinations

In the event that a student misses the midterm or any course work due to illness then an official medical note will be required. Absences must be reported **within 48 hrs**. If a student misses the midterm for other reasons, then analogous documentation will be required. The course coordinator will need to see the original documentation (not electronic copy) 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 midterm in order for an excused absence to be considered. If an excused absence is approved, then the percentage weight of a legitimately missed midterm examination will be transferred to the final examination (see [Section E.3](#) of the University Calendar).

5. Scheduled out-of-class activities:

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

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.

6. Course Materials:

RECOMMENDED: Any second year "Organic Chemistry" text book (preferably containing chapters on amino acids, basic peptide/protein structure, nucleic acid, lipid and carbohydrate chemistry)

7. Examination Policy:

The MID-TERM will be held in class on THU MAR 8th 2018, 12:30-13:45.

The FINAL examination will be scheduled by the Registrar's Office. See note below about deferred examinations.

The University policies around examinations and tests are described in [section G](#) of the online Calendar.

“Exam conditions” All examinations are closed book, some data sheets pertinent to the exam may be provided by the instructor. Model kits and non-programmable calculators are allowed but no other external aids are permitted including any form of "cheat" or "data" materials. Wireless devices and other electronic devices are not allowed.

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 those reports. See also Section [E.2](#) of the University Calendar.

10. Human studies statement:

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

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 [1.1](#) and [1.2](#) of the University Calendar

2. **Final Exam:** The student shall submit the request to Enrolment Services. See [Section 1.3](#) of the University Calendar.

12. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- a. **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.**
- b. **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).
- c. **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-accomodations-for-students-with-disabilities_0.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: <http://www.ucalgary.ca/pubs/calendar/current/e-4.html>

- d. **Safewalk:** Campus Security will escort individuals day or night (www.ucalgary.ca/security/safewalk/) . 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.
- e. **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 also www.ucalgary.ca/legalservices/foip.
- f. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](tel:403-220-3911) Email: suvcaca@ucalgary.ca. SU Faculty Rep., Phone: [403-220-3913](tel:403-220-3913) Email: sciencerep@su.ucalgary.ca. Student Ombudsman, Email: suvcaca@ucalgary.ca.
- g. **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.
- 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. **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).

Department Approval:

Electronically Approved

Date: 2017-12-20 08:52

Course Outcomes

1. Theory of Chemistry: elucidate, interpret the structure, bonding, conformation of biomolecules include amino acids/peptide/proteins, carbohydrate, nucleotides and lipids
2. Acquire ability to predict chemical and physical properties of biomolecules
3. Acquire knowledge on how biomolecules are synthesized in nature, design/plan multistep synthesis for biomolecules using chemical methods
4. "Connecting-the-dots": acquire knowledge on how biomolecules interact with each other, how they affect human health and our society.
5. Drug development: acquire general knowledge of important diseases, and how chemists can design drug molecules to interfere with the biosynthesis and function of biomolecules in order to improve health. Be able to propose mechanism of actions of drug molecules
6. Be aware of common scientific literatures related to biomolecules, and where to find them. Have the ability to evaluate published material for its rigor and relevancy.
7. Ability to clearly and concisely present scientific information of difference classes of biomolecules in written, diagrammatic and oral form to scientific community