REVISED COURSE OUTLINE FOR REMOTE LEARNING

To account for the necessary transition to remote learning from March 13 onward, adjustments have been made to assessment deadlines and requirements so that all coursework tasks are in line with the necessary and evolving health precautions for all involved (students and staff). If you are unable to meet the deadlines or requirements specified, please connect with your course instructor to work out alternative dates/assessments.

1. Course: CHEM 555, Advanced Organic Laboratory - Winter 2020

Lecture 01: M 15:00 - 15:50 - Remote Learning (check with your instructor or coordinator for details)

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Email</th>
<th>Phone</th>
<th>Office</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Jeffrey Van Humbeck</td>
<td><a href="mailto:jeffrey.vanhumbec1@ucalgary.ca">jeffrey.vanhumbec1@ucalgary.ca</a></td>
<td>220-3039</td>
<td>SB 229A</td>
<td>By appointment</td>
</tr>
</tbody>
</table>

Course Site:

D2L: CHEM 555 L01-(Winter 2020)-Advanced Organic Laboratory

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

***COVID closure update***

There is a minimal change to the assessment criteria due to the closure of the experimental labs.

The weighting for the major experimental reports (#1/#2) has increased by 5% each (now 25%/25%).

The lab practical exam has been replaced by a small assignment due on the final day of class at 11:59 PM worth 10% of the grade.

The due dates for lab 3 and the now ‘dry lab’ 4 are unchanged (April 1/10).

2. Requisites:

See section 3.5.C in the Faculty of Science section of the online Calendar.

Prerequisite(s):

Chemistry 453 and admission to the Chemistry major, Applied Chemistry major or Chemical Physics major.

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:

<table>
<thead>
<tr>
<th>Component(s)</th>
<th>Weighting %</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper Synthesis Assessment</td>
<td>10</td>
<td>April 15th, 11:59 PM</td>
</tr>
<tr>
<td>Experimental Reports</td>
<td>70</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Lecture Participation</td>
<td>10</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Laboratory Collaboration</td>
<td>10</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Minimum % Required</th>
<th>A+</th>
<th>A</th>
<th>A-</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C+</th>
<th>C</th>
<th>C-</th>
<th>D+</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>95 %</td>
<td>85</td>
<td>80</td>
<td>75</td>
<td>70</td>
<td>65</td>
<td>60</td>
<td>55</td>
<td>50</td>
<td>45</td>
<td>40</td>
<td>35</td>
</tr>
</tbody>
</table>
The grading schemes for 'Lecture Participation' and 'Laboratory Collaboration' will be discussed during the first lecture of the course and will also be posted in the D2L 'Contents' folder.

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

The University has suspended requirements for students to provide evidence for reasons for absences so please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations. Please let your instructor know immediately if you are ill and cannot meet the deadlines specified.

If an excused absence is approved, then the percentage weight of a legitimately missed course component will be pro-rated among the remaining components of the course (see Section E.3 of the University Calendar). If a student misses a required experiment for non-legitimate reasons (e.g. vacation), and did not perform the experiment, the graded write-up for that laboratory will not be accepted and the grade will be given as zero.

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

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

6. **Course Materials:**

All necessary textbook and lab manual materials will be posted on D2L. Students will need to print out the experimental procedure for the laboratory themselves and bring a copy to the lab. A self-duplicating Laboratory Notebook is required to be purchased from the bookstore.

7. **Examination Policy:**

No aids are allowed on tests or examinations.

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

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

Due to the mid-semester transition to online learning, laboratory checkout is not required this semester. No fees will be assessed for either breakage or failure-to-checkout.

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.

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
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 significant contribution to the learning experience of students.

a. **Academic Misconduct:** This refers to actions that violate the rules and regulations of the university. Examples include plagiarism, cheating, fabrication of data, unauthorized collaboration, and various forms of academic dishonesty. Misconduct can lead to serious consequences, ranging from warnings to expulsion, depending on the severity of the offense. We encourage students to understand the implications of their actions and strive for ethical conduct.

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](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) 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](http://example.com/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](http://example.com/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 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](http://example.com/assembly-points) of the University Calendar.

g. **Safewalk:** Campus Security will escort individuals day or night (See the [Campus Safewalk website](http://example.com/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.

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](http://example.com/legal) website.

i. **Student Union Information:** [VP Academic](mailto:403-220-3911), Phone: [403-220-3911](tel:403-220-3911) Email: [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca). [SU Faculty Rep.](mailto:403-220-3913), Phone: [403-220-3913](tel:403-220-3913) Email: [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca). [Student Ombudsman](mailto:ombuds@ucalgary.ca), Email: [ombuds@ucalgary.ca](mailto:ombuds@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
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:

- Analyse an experimental procedure and adapt it to resource and infrastructure constraints and compound quantity/purity needs.
- Recognize and perform the “unwritten” fundamental processes involved in working up typical organic chemical reactions.
- Safely handle air and moisture sensitive reagents and products using techniques such as, drying glassware, choosing proper glassware, sparging with inert gas, pulling TLC spotters, drying solvents and reagents and setting up apparatus.
- Use several methods of purification and isolation including, distillation, crystallization and column chromatography to a level that meets publication requirements for molecular identity and purity.
- Prepare spectroscopic samples and operate modern instruments including NMR, MS, GC and IR.
- Troubleshoot and diagnose problematic reactions and side product formation using a combination of TLC and instrumental methods
- Review, interpret and write technical documents, including relevant supporting experimental information, which explains the procedures, structural assignment, logic and purification strategies used.