

## Faculty of Science Course Syllabus

### Department of Chemistry Honours & Major Research Project

#### CHEM4902 and CHEM4903 Fall 2018 and Winter 2019

**Coordinator:** Professor Frances Cozens, Room 410, 902-494-6582, fcozens@dal.ca

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#### **Course Description**

CHEM4902 and CHEM4903 are required for students in the latter stages of the honours program. Students carry out research projects under the supervision of a faculty member and submit reports and make oral presentations to the Department. The class is split into two terms with a grade of 'IP' being issued for the fall term. The class must be completed as CHEM4902 and CHEM4903 together for 6 credits. The final grade will be given for both terms at the end of the winter term 2019. The fall term is worth 35% of the final mark and the winter term is worth 65% of the final mark. This is because of the slower progress associated with the fall term compared to the winter term in CHEM4902 and CHEM4903. This class is run as a full year class that is split into two terms because of Dalhousie's class policies.

#### **Course Prerequisites**

PREREQUISITES: A minimum GPA of 3.0 is required for this course. Permission of instructor.

#### **Course Objectives/Learning Outcomes**

- Carry out original research in a chemistry laboratory under the supervision of a chemistry faculty member.
- Communicate research results, both through oral presentation and written reports.

#### **Course Materials**

- Web of Science Citation Databases (Chemistry search; Dalhousie library)  
[http://apps.webofknowledge.com/UA\\_GeneralSearch\\_input.do?product=UA&search\\_mode=GeneralSearch&SID=4CqG4ooiIR25p7YLkk2&preferencesSaved=](http://apps.webofknowledge.com/UA_GeneralSearch_input.do?product=UA&search_mode=GeneralSearch&SID=4CqG4ooiIR25p7YLkk2&preferencesSaved=)
- Scifinder Scholar (chemistry search; Dalhousie library)  
<https://scifinder.cas.org/scifinder/login>

## Course Assessment

### **CHEM4902 Fall Grading Scheme**

Research Proposal .....	5%
<i>Due Thursday, Sept. 27, at noon</i>	
Supervisor Evaluation 1 .....	5%
<i>Complete by Oct 15-Oct 19</i>	
Fall Term Report .....	10%
<i>Due Thursday, Nov 22, at noon</i>	
Oral Presentation & Defence .....	10%
<i>The afternoon of Tuesday, December 4</i>	
Supervisor Evaluation 2 .....	5%
<i>Complete between Dec 3-Dec 7</i>	

### **CHEM4903 Winter Grading Scheme**

Winter Term Report .....	35%
<i>Due Monday, March 25, at noon</i>	
Final Oral Presentation & Defence .....	20%
<i>The afternoon of Thursday, April 4</i>	
Supervisor Evaluation 3 .....	10%
<i>Complete between Apr 5-Apr 10</i>	

### **Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale**

<b>A+</b> (90-100)	<b>B+</b> (77-79)	<b>C+</b> (65-69)	<b>D</b>	(50-54)
<b>A</b> (85-89)	<b>B</b> (73-76)	<b>C</b> (60-64)	<b>F</b>	(<50)
<b>A-</b> (80-84)	<b>B-</b> (70-72)	<b>C-</b> (55-59)		

## Course Policies

### **Emergencies:**

If you are too ill to complete an examination or otherwise meet a deadline in this class, please arrange for a medical certificate, as per the regulations in the University Calendar. A student who is well enough to be examined or submit components for assessment will not be given a late extension or allowed a re-write. However, if you are ill or experiencing an extreme personal emergency at the time of a test or an assignment, call or email the course coordinator (leave a message if necessary) to inform of your situation. Extensions *may* be granted, or arrangements to accommodate an oral defence, pending the nature of the illness or emergency.

### **Feedback on Student Assessment:**

Students will be returned all written forms of assessment, following grading (normally within 2 weeks of submission). Grades for oral presentations will be communicated to the student within 1 week of their

presentation day. This will take the form of a letter prepared by the coordinator (distributed to the student and respective supervisors).

**Web Site:** Brightspace

**Communication:**

The course coordinator will convey relevant information on the course website, as well as email. It is your responsibility to regularly consult the course website, as well as your Dalhousie email.

**Cancellations:**

Weather-related closure of the University implies the cancellation of all courses, and includes this one. University closure may also impact submission of written assessment components, in which case the due date will be moved to next day that the University is open. Oral presentations may be rescheduled to dates which have been reserved during the examination period, as set by the Registrar's office.

**Laboratory Safety:**

The Chemistry Department recognizes its responsibility to undertake teaching and research activities in a safe and environmentally responsible fashion. Responsibilities of the University, departmental chairs, laboratory supervisors, staff and students are defined in Dalhousie policy manuals made available by the Office of Environmental Health and Safety at <http://safety.dal.ca>. The Department of Chemistry has adopted additional safety policies, which are appended to this document. The supervisor will review these policies with the student prior to commencing any work in the laboratory.

Recognizing the shared responsibility to uphold a safe working environment, the student should immediately alert the research supervisor, or alternatively the course coordinator, if any safety concerns should arise.

**Appendices:**

- A. Dalhousie Chemistry Safety Policy
- B. Intellectual Honesty
- C. Reports, Presentations and their Evaluation
- D. Evaluation Forms:
  - Supervisor Evaluation Form
  - Research Proposal Evaluation Form
  - CHEM4902 Fall Term Report Evaluation Form
  - CHEM4903 Winter Term Report Evaluation Form

**Faculty of Science Course Syllabus (Section B) (revised 29-August-2017)**  
*CHEM 4902 and CHEM4903*

## University Policies and Statements

**This course is governed by the academic rules and regulations set forth in the University Calendar and by Senate**

### Academic Integrity

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect (The Center for Academic Integrity, Duke University, 1999). As a student, you are required to demonstrate these values in all of the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity.

**Information:** [https://www.dal.ca/dept/university\\_secretariat/academic-integrity.html](https://www.dal.ca/dept/university_secretariat/academic-integrity.html)

### Accessibility

The Advising and Access Services Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students who request accommodation as a result of a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (Canada and Nova Scotia).

**Information:** [https://www.dal.ca/campus\\_life/academic-support/accessibility.html](https://www.dal.ca/campus_life/academic-support/accessibility.html)

### Student Code of Conduct

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution.

**Code:** [https://www.dal.ca/dept/university\\_secretariat/policies/student-life/code-of-student-conduct.html](https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html)

### Diversity and Inclusion – Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness

**Statement:** <http://www.dal.ca/cultureofrespect.html>

### Recognition of Mi'kmaq Territory

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Visit or e-mail the Indigenous Student Centre (1321 Edward St) ([elders@dal.ca](mailto:elders@dal.ca)).

**Information:** [https://www.dal.ca/campus\\_life/communities/indigenous.html](https://www.dal.ca/campus_life/communities/indigenous.html)

**Important Dates** in the Academic Year (including add/drop dates)

[https://www.dal.ca/academics/important\\_dates.html](https://www.dal.ca/academics/important_dates.html)

**University Grading Practices**

[https://www.dal.ca/dept/university\\_secretariat/policies/academic/grading-practices-policy.html](https://www.dal.ca/dept/university_secretariat/policies/academic/grading-practices-policy.html)

## Student Resources and Support

### Advising

**General Advising** [https://www.dal.ca/campus\\_life/academic-support/advising.html](https://www.dal.ca/campus_life/academic-support/advising.html)

**Science Program Advisors:** <https://www.dal.ca/faculty/science/current-students/academic-advising.html>

**Indigenous Student Centre:** [https://www.dal.ca/campus\\_life/communities/indigenous.html](https://www.dal.ca/campus_life/communities/indigenous.html)

**Black Advising Centre:** [https://www.dal.ca/campus\\_life/communities/black-student-advising.html](https://www.dal.ca/campus_life/communities/black-student-advising.html)

**International Centre:** [https://www.dal.ca/campus\\_life/international-centre/current-students.html](https://www.dal.ca/campus_life/international-centre/current-students.html)

### Academic supports

**Library:** <https://libraries.dal.ca/>

**Writing Centre:** [https://www.dal.ca/campus\\_life/academic-support/writing-and-study-skills.html](https://www.dal.ca/campus_life/academic-support/writing-and-study-skills.html)

**Studying for Success:** [https://www.dal.ca/campus\\_life/academic-support/study-skills-and-tutoring.html](https://www.dal.ca/campus_life/academic-support/study-skills-and-tutoring.html)

**Copyright Office:** <https://libraries.dal.ca/services/copyright-office.html>

**Fair Dealing Guidelines** <https://libraries.dal.ca/services/copyright-office/fair-dealing.html>

### Other supports and services

**Student Health & Wellness Centre:** [https://www.dal.ca/campus\\_life/health-and-wellness/services-support/student-health-and-wellness.html](https://www.dal.ca/campus_life/health-and-wellness/services-support/student-health-and-wellness.html)

**Student Advocacy:** <https://dsu.ca/dsas>

**Ombudsperson:** [https://www.dal.ca/campus\\_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html](https://www.dal.ca/campus_life/safety-respect/student-rights-and-responsibilities/where-to-get-help/ombudsperson.html)

### Safety

#### Research Lab Safety

[https://www.dal.ca/content/dam/dalhousie/pdf/dept/safety/lab\\_policy\\_manual\\_2007.pdf](https://www.dal.ca/content/dam/dalhousie/pdf/dept/safety/lab_policy_manual_2007.pdf)

**Biosafety:** <https://www.dal.ca/dept/safety/programs-services/biosafety.html>

**Chemical Safety:** <https://www.dal.ca/dept/safety/programs-services/chemical-safety.html>

**Radiation Safety:** <https://www.dal.ca/dept/safety/programs-services/radiation-safety.html>

**Scent-Free Program:** <https://www.dal.ca/dept/safety/programs-services/occupational-safety/scent-free.html>