



SC/CHEM 6000

MSc Review Essay

Prerequisite

The equivalent of two full graduate courses (i.e., 12 credits) and Permission of the Graduate Program Director

Contact Information

Graduate Program Director (ChemGPD@yorku.ca)

Course Description

The MSc Review Essay course (CHEM 6000) is offered as either a 3- (one term; CHEM 6000 3.0) or 6-credit (two terms; CHEM 6000 6.0) option. The scope of the essay will be determined in consultation with a Chemistry faculty member affiliated with the Faculty of Graduate Studies (FGS) with subsequent approval by the Graduate Program Director. Topics can be selected in fields related to analytical (including atmospheric chemistry and mass spectrometry), biological, inorganic, materials, organic, physical and theoretical chemistry.

Purpose and Objectives of the Course

The purpose of the course is to give graduate students the opportunity to:

1. demonstrate the knowledge and awareness of state of the art of the chemistry under review;
2. demonstrate the ability to comprehensively search (using search engines such as SciFinder) and critically analyse the literature;
3. compile, summarize and present information related to the chemistry under review in a clear and concise manner;
4. identify the complexity of knowledge and of potentially conflicting data/interpretations presented in the literature;
5. develop proficiency in properly citing primary sources, including the use of a bibliography/reference management service/software (such as Mendeley, Zotero, EndNote and Bookends); and
6. demonstrate independence, initiative and ethical behaviour consistent with academic integrity.

Course Expectations and Logistics

With the prerequisite of having successfully completed the equivalent of two full graduate courses (12 credits), *this course is restricted to graduate students enrolled in the coursework MSc program. Before the commencement of the term*, students should meet with the faculty member who has agreed to mentor and supervise them throughout the duration of the course. The scope of the essay should be agreed upon by the student and the course director/supervisor. A formal approval for either CHEM 6000 3.0 or 6.0 is then sought from the Graduate Program Director by providing the following information under separate headings in a PDF format (maximum two pages):

1. The title of the essay,
2. The scope of the essay, and
3. The objective(s) of the essay.

Students initially approved for a 3-credit course will not be permitted to change to the 6-credit course, and vice versa. They can however elect to drop the course (see “Important Dates” below) and re-enrol in a subsequent term. Students who decide to enrol in CHEM 6000 3.0 will be allowed to enrol in a second review essay course CHEM 6000 3.0 only if supervised by a different course director/supervisor. A maximum of six credits (either as two CHEM 6000 3.0 courses, or as one CHEM 6000 6.0 course) can count towards the coursework-based MSc program requirements.

If approved, the student and the course director/supervisor are expected to meet on a regular basis, and more frequently especially at the beginning to address any issues early in the term and to ensure that the student is making good progress. Students are expected to provide at least one progress report to the course director for feedback and comments (see “Evaluation” below). This progress report must contain an outline for the essay for approval from the course director/supervisor.

The final version of the essay must be submitted in a format that is suitable for submission to a peer-reviewed chemistry journal. As such, students can use templates available from renowned peer-reviewed journals. The actual journal should be selected in consultation with the course director/supervisor. The template can normally be downloaded directly from the “Author Resources” or “Information for Authors” webpage of the respective journal. For example, the template for the *Journal of the American Chemical Society* can be downloaded in either the Mac or Windows versions at http://pubs.acs.org/paragonplus/submission/templates/acspagewide_msw2011_mac.dotx and <http://pubs.acs.org/paragonplus/submission/templates/acsPageWide-MSW2010.dotx>, respectively.

The References section of the essay must be generated using a bibliography/reference management service/software, such as Mendeley, Zotero, EndNote and Bookends. York libraries support both Mendeley (<http://researchguides.library.yorku.ca/mendeley>) and Zotero (<http://researchguides.library.yorku.ca/zotero>). Students are strongly encouraged to use the ACS Style Guide (available at the Steacie Library and also online at <https://pubs.acs.org/isbn/9780841239999>) as a resource to write their essay.

The deadline to submit the final essay is on the “last day to submit ... term work” as determined by the Faculty of Graduate Studies (see <http://gradstudies.yorku.ca/current-students/student-status/important-dates/>). **The essay must be submitted in a PDF format to both the course director/supervisor and Graduate Program Director.** Failure to do so will result in an “incomplete” on the student’s record at the Registrar’s Office, and will automatically turn into an “F” unless the student provides an electronic copy (PDF) of the essay as indicated above.

The Program will seek a second assessment of the review essay by another faculty member from the Department of Chemistry. Furthermore, academic integrity will be strictly applied. The essay will be evaluated for plagiarism, with an academic hearing to discuss possible breach in academic integrity if necessary (see “Academic Integrity” below).

Evaluation

CHEM 6000 3.0 (3-credit option)	
Progress report (due within three weeks from the start of the term)	10%
Final paper (final word count: 7,500–10,000 words , excluding captions and bibliography; deadline – see above) †	90%†
CHEM 6000 6.0 (6-credit option)	
Progress report 1 (due within three weeks from the start of the term)	5%
Progress report 2 (due within one week from the start of the second term)	5%
Final paper (final word count: 15,000–20,000 words ; excluding captions and bibliography; deadline – see above) †	90%†

†A final presentation, worth up to 10%, may be included in the Evaluation at the course director/supervisor's discretion. The weighting of the final paper would be

reduced accordingly to no less than 80%. This modified grading scheme must be communicated in writing to the student by the course director/supervisor before the student requests approval from the Graduate Program Director to enrol in the course.

Important Dates

Important dates, such as the last day to drop a course without receiving a grade, are listed on the FGS website (<http://gradstudies.yorku.ca/current-students/student-status/important-dates/>).

Academic Integrity

Students are expected to abide by rules set forth by York University. Any cases of academic misconduct or dishonesty (including plagiarism) will be treated accordingly. Ignorance of the Policies is not an acceptable excuse and students are strongly encouraged to become familiar with such Policies. The link to the Academic Integrity for Students web site is provided for convenience (<http://www.yorku.ca/academicintegrity/students/index.htm>). Students MUST also complete the Academic Integrity Tutorial, if they have not already done so (http://www.yorku.ca/tutorial/academic_integrity/).

(Revised and approved on March 15th, 2018 – effective S18)