

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: CHEM 408		Number of Credits: 3 Course credit policy (105)															
Course Full Title: Directed Studies in Chemistry Course Short Title: <i>(Transcripts only display 30 characters. Departments may recommend a short title if one is needed. If left blank, one will be assigned.)</i>																	
Faculty: Faculty of Science		Department (or program if no department): Chemistry															
Calendar Description: Students will undertake one of the following: directed readings, literature research, or a laboratory research project in an area of chemistry under faculty supervision. Note: This course is intended to be completed during the fourth year of study.																	
Prerequisites (or NONE):		B or better in three chemistry courses numbered 300 or above and permission of the department head.															
Corequisites (if applicable, or NONE):		NONE.															
Pre/corequisites (if applicable, or NONE):		NONE.															
Antirequisite Courses <i>(Cannot be taken for additional credit.)</i> Former course code/number: Cross-listed with: Dual-listed with: Equivalent course(s): <i>(If offered in the previous five years, antirequisite course(s) will be included in the calendar description as a note that students with credit for the antirequisite course(s) cannot take this course for further credit.)</i>		Special Topics This course is offered with different topics: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(Double-click on box to select it as checked.)</i> If yes, different lettered courses may be taken for credit: <input type="checkbox"/> No <input type="checkbox"/> Yes, repeat(s) <input type="checkbox"/> Yes, no limit <i>(The specific topic will be recorded when offered.)</i>															
Typical Structure of Instructional Hours		Transfer Credit Transfer credit already exists: (See bctransferguide.ca) <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Submit outline for (re)articulation: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <i>(If yes, fill in transfer credit form.)</i>															
<table border="1"> <tr><td>Lecture/seminar hours</td><td></td></tr> <tr><td>Tutorials/workshops</td><td></td></tr> <tr><td>Supervised laboratory hours</td><td></td></tr> <tr><td>Experiential (field experience, practicum, internship, etc.)</td><td></td></tr> <tr><td>Supervised online activities</td><td></td></tr> <tr><td>Other contact hours: Self-directed learning</td><td>90</td></tr> <tr><td>Total hours</td><td>90</td></tr> </table>		Lecture/seminar hours		Tutorials/workshops		Supervised laboratory hours		Experiential (field experience, practicum, internship, etc.)		Supervised online activities		Other contact hours: Self-directed learning	90	Total hours	90	Grading System <input checked="" type="checkbox"/> Letter Grades <input type="checkbox"/> Credit/No Credit	
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Total hours	90																
Labs to be scheduled independent of lecture hours: <input type="checkbox"/> No <input type="checkbox"/> Yes		Expected Frequency of Course Offerings: Every semester <i>(Every semester, Fall only, annually, every other Fall, etc.)</i>															
Department / Program Head or Director: Dr. Cory Beshara		Date approved: May 18, 2018															
Faculty Council approval		Date approved: September 7, 2018															
Dean/Associate VP: Dr. Lucy Lee		Date approved: September 7, 2018															
Campus-Wide Consultation (CWC)		Date of posting: n/a															
Undergraduate Education Committee (UEC) approval		Date of meeting: October 26, 2018															

Learning Outcomes:

Upon successful completion of this course, students will be able to:

- Formulate a written proposal in which the rationale for their choice of topic is presented.
- Perform an in-depth literature search.*
- Summarize in a written survey of the chosen topic, presented in a clear and scholarly way, and in the style of a major scientific journal.
- Perform the necessary experimental work and/or use the relevant computer software in order to complete the project in a timely, safe, and effective manner.
- Handle all necessary equipment and chemicals safely and effectively.
- Present the results of their research by means of an oral seminar or other form of presentation approved by the supervisor and department head.

* Not required in the case of a directed reading situation.

Prior Learning Assessment and Recognition (PLAR)

Yes No, PLAR cannot be awarded for this course because there is no way to standardize the content of the course.

Typical Instructional Methods (*Guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion.*)

Systematic and in-depth study of the literature pertaining to the chosen topic. This study may include the use of journals, databases, abstracts, and online resources.

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Typical Text(s) and Resource Materials (*If more space is required, download Supplemental Texts and Resource Materials form.*)

Original journal articles, reviews, etc. These are available in the UFV library, online (e.g., through CRKN), or through inter-library loan. Monographs, etc. selected by the supervisor.

Author (surname, initials)	Title (article, book, journal, etc.)	Current ed.	Publisher	Year
1. Various	All relevant chemical journals	<input type="checkbox"/>	Various	
2.		<input type="checkbox"/>		
3.		<input type="checkbox"/>		
4.		<input type="checkbox"/>		
5.		<input type="checkbox"/>		

Required Additional Supplies and Materials (*Software, hardware, tools, specialized clothing, etc.*)

Library facilities. Internet access.

Typical Evaluation Methods and Weighting

Final report:	35%	Assignments:	%	Field experience:	%	Portfolio:	%
Midterm exam:	%	Oral presentation	40%	Lab work:	%	Student proposal	10%
Quizzes:	%	Intermediate report	15%	Shop work:	%	Total:	100%

Details (if necessary):**Typical Course Content and Topics**

Course content varies by research project. The requirements of the individual project will be devised in consultation with the student's supervisor.