

COURSE IMPLEMENTATION DATE: September 2012  
 COURSE REVISED IMPLEMENTATION DATE: \_\_\_\_\_  
 COURSE TO BE REVIEWED: June 2018  
*(six years after UEC approval)* (month, year)

**OFFICIAL UNDERGRADUATE COURSE OUTLINE INFORMATION**

Students are advised to keep course outlines in personal files for future use.  
 Shaded headings are subject to change at the discretion of the department – see course syllabus available from instructor

<u>CHEM 407</u>	<u>Faculty of Science</u>	<u>2</u>
COURSE NAME/NUMBER	FACULTY/DEPARTMENT	UFV CREDITS
Undergraduate Chemistry Directed Studies or Research		
COURSE DESCRIPTIVE TITLE		

**CALENDAR DESCRIPTION:**

This course is for chemistry students and involves either (i) directed reading and/or literature research in an area of chemistry chosen in consultation with a supervisor, or (ii) completion of a research project designed in consultation with a supervisor. Normally this course will be taken during the fourth year of study, and is intended to be completed within one semester of study.

PREREQUISITES: A grade of B or better in three CHEM courses numbered 300 or above, and permission of the department head.

COREQUISITES:  
 PRE or COREQUISITES:

**SYNONYMOUS COURSE(S):**

(a) Replaces: n/a  
 (b) Cross-listed with: \_\_\_\_\_  
 (c) Cannot take: n/a for further credit.

**SERVICE COURSE TO:** *(department/program)*

**TOTAL HOURS PER TERM:** 30

**STRUCTURE OF HOURS:**

Lectures:	_____ Hrs
Seminar:	_____ Hrs
Laboratory:	_____ Hrs
Field experience:	_____ Hrs
Student directed learning:	<u>30</u> Hrs
Other (specify):	_____ Hrs

**TRAINING DAY-BASED INSTRUCTION:**

Length of course: \_\_\_\_\_  
 Hours per day: \_\_\_\_\_

**OTHER:**

Maximum enrolment: 24  
 Expected frequency of course offerings: every year  
*(every semester, annually, every other year, etc.)*

<b>WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)</b>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<b>TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Course designer(s): <u>David Fenske</u>	Date approved: <u>April 13, 2012</u>
Department Head: <u>David Fenske</u>	Date of meeting: <u>April 27, 2012</u>
Supporting area consultation (Pre-UEC)	Date approved: <u>May 18, 2012</u>
Curriculum Committee chair: <u>David Fenske</u>	Date approved: <u>June 1, 2012</u>
Dean/Associate VP: <u>Ora Steyn</u>	Date of meeting: <u>June 22, 2012</u>
Undergraduate Education Committee (UEC) approval	

**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.
- Carry out a literature search on their chosen research topic.
- 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.
- Use specific techniques required to complete the chosen project.
- Produce a written report on their research, or a written survey of the chosen topic, written in a clear and scholarly way, and in the style of a major scientific journal.
- Present the results of their research by means of a seminar or other form of presentation approved by the supervisor and department head.

**METHODS:** *(Guest lecturers, presentations, online instruction, field trips, etc.)*

Student directed learning. The student will work closely with a faculty member who has expertise in the selected research area. This will include systematic and in-depth study of the literature pertaining to the chosen topic. This study may include the use of journals, databases, abstracts, and on-line resources.

**METHODS OF OBTAINING PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):**

Examination(s)                       Portfolio assessment                       Interview(s)

Other (specify): Evaluation of equivalent work.

PLAR cannot be awarded for this course for the following reason(s):

**TEXTBOOKS, REFERENCES, MATERIALS:**

*[Textbook selection varies by instructor. An example of texts for this course might be:]*

The student will be expected to access the chemical literature using on-line and/or traditional methods.

**SUPPLIES / MATERIALS:**

**STUDENT EVALUATION:**

*[An example of student evaluation for this course might be:]*

Student proposal	10%
Intermediate report	15%
Intermediate oral presentation	15%
Final report	30%
Oral presentation	30%

**COURSE CONTENT:**

*[Course content varies by instructor. An example of course content might be:]*

N/A