

Minor Program Adjustment

Faculty: Science	Date: November 2016
Program: Bachelor of Science in Chemistry	
Undergraduate: <input checked="" type="checkbox"/>	Graduate: <input type="checkbox"/>

Minor Program Adjustments include: New required courses, Deletion of required courses, Other changes to degree requirements or program learning outcomes, New academic requirements or changes to existing requirements.

Motion to CPRC or GSC: That CPRC approve the addition of a new fourth-year elective chemistry course to be offered for all chemistry programs.

Proposal Brief

Summary of the proposed change

We would like to add a new 4th year elective chemistry course in the calendar. The course, to be named CHEM 4610U, "Advances in Inorganic Chemistry" is currently being offered for a second time under a 'Special Topics, CHEM 4041U". The chemistry group has plans to offer a fourth-year advanced inorganic course on a more regular and consistent basis. If approved, this course would be a suitable 4th-year senior chemistry elective for all chemistry programs.

Description of the ways in which the proposed change will enhance the program and/or opportunities for students

At UOIT, we only offer two inorganic chemistry classes (CHEM 3510U and CHEM 3520U). Adding a fourth-year class in Advanced Inorganic Chemistry would give students and faculty greater flexibility in course offering, in addition to providing a satisfactory number of courses in this area of chemistry. Currently, two courses in inorganic chemistry is not sufficient.

Process of consultation with other units if the change(s) involves students, staff, and/or faculty from other programs or courses

None required.

Analysis of financial and enrolment implications

We are currently offering this course as a special topics course for the second time. There are no financial obligations as we are planning on offering this course anyways, on a yearly basis. The proper course code and name will reflect the contents of the course.

Proposed Implementation Date

Academic year 2017-2018

Transition Plan

None required, this course will be available to students as an optional elective.

Calendar Copy and/or Program Maps (highlight revisions to existing curriculum)

Please see below the addition of the course and the new course template.

APPROVAL DATES

Curriculum Committee approval	November 2016
Faculty Council approval	December 2016
CPRC Approval	
Submission to Academic Council	

Chemistry:

All students must complete a total of 30 elective credit hours including 3 credit hours in Senior Chemistry electives. Students who are not accepted into the thesis option ([CHEM 4410U](#) / [CHEM 4420U](#)) must take two additional Senior Chemistry electives for a total of 36 elective credit hours. A Senior Chemistry elective is defined as: [CHEM 3250U](#), [CHEM 3090U](#), [CHEM 4010U](#), [CHEM 4041U](#), [CHEM 4042U](#), [CHEM 4110U](#), [CHEM 4120U](#), [CHEM 4510U](#), [CHEM 4520U](#), or [CHEM 4080U](#). At least 12 elective credit hours must be in courses offered by the Faculty of Science including the Senior Chemistry elective; the additional Senior Chemistry electives required for students who are not enrolled in thesis cannot be used to meet this requirement. At least 12 elective credit hours must be in courses outside the Faculty of Science. Students must take the remaining 6 elective credit hours in a general elective (offered by the Faculty of Science or outside the Faculty of Science).

Proposal: **Addition of CHEM 4610U to the above list of Senior Chemistry electives.**

Pharmaceutical Chemistry Specialization:

All students must complete a total of 30 elective credit hours including 3 credit hours in Senior Chemistry electives. Students who are not accepted into the thesis option ([CHEM 4410U](#) / [CHEM 4420U](#)) must take two additional Senior Chemistry electives for a total of 36 elective credit hours. A Senior Chemistry elective is defined as: [CHEM 3250U](#), [CHEM 3090U](#), [CHEM 4010U](#), [CHEM 4041U](#), [CHEM 4042U](#), [CHEM 4110U](#), [CHEM 4120U](#), [CHEM 4510U](#), [CHEM 4520U](#), or [CHEM 4080U](#). At least 12 elective credit hours must be in courses offered by the Faculty of Science including the Senior Chemistry elective; the additional Senior Chemistry electives required for students who are not enrolled in thesis cannot be used to meet this requirement. At least 12 elective credit hours must be in courses outside the Faculty of Science. Students must take the remaining 6 elective credit hours in a general elective (offered by the Faculty of Science or outside the Faculty of Science).

Proposal: **Addition of CHEM 4610U to the above list of Senior Chemistry electives.**

Chemical Biology Specialization:

All students must complete a total of 33 elective credit hours including 6 credit hours in Senior Chemistry electives. Students who are not accepted into the thesis option ([CHEM 4410U](#) / [CHEM 4420U](#)) must take two additional Senior Chemistry electives for a total of 39 elective credit hours. A Senior Chemistry elective is defined as: [CHEM 3250U](#), [CHEM 3090U](#), [CHEM 4010U](#), [CHEM 4041U](#), [CHEM 4042U](#), [CHEM 4110U](#), [CHEM 4120U](#), [CHEM 4510U](#), [CHEM 4520U](#), or [CHEM 4080U](#). At least 15 elective credit hours must be in courses offered in the Faculty of Science including the Senior Chemistry electives; the additional Senior Chemistry electives required for students who are not enrolled in thesis cannot be used to meet this requirement. In order to satisfy breadth requirements; at least 12 elective credit hours must be in courses outside the Faculty of Science. Students must take the remaining 6 elective credit hours in a general elective (offered by the Faculty of Science or outside the Faculty of Science).

Proposal: Addition of **CHEM 4610U** to the above list of Senior Chemistry electives.

NEW COURSE TEMPLATE

For changes to existing courses see Course Change Template

Faculty: Science		
Course title: Advances in Inorganic Chemistry		
Course number: CHEM 4610U	Cross-listings: none	<input type="checkbox"/> Core <input checked="" type="checkbox"/> Elective
Credit weight: 3	Contact hours: 3 Lecture 0 Lab 0 Tutorial 0 Other	

CALENDAR DESCRIPTION

This course covers current and advanced topics in inorganic chemistry. The emphasis will be on contemporary research topics and will include areas such as bioinorganic chemistry, main group chemistry, and inorganic materials chemistry.

Prerequisites	CHEM 3520
Co-requisites	
Credit restrictions	
Credit exemptions	
Grading scheme	<input checked="" type="checkbox"/> letter grade <input type="checkbox"/> pass/fail

LEARNING OUTCOMES

On the successful completion of the course, students will be able to:

- understand and recognize the various factors that affect the stability, structure and reactivity of transition metal coordination complexes
- apply fundamental inorganic theoretical principles to predict the properties of transition metal complexes
- read and understand a peer-reviewed literature article in the areas of inorganic chemistry covered by the course

- have sufficient general background knowledge and understanding to work on an honours and graduate level inorganic chemistry laboratory research project

DELIVERY MODE

(check all that may apply) face-to-face hybrid online

TEACHING AND ASSESSMENT METHODS

Lectures, marked assignments, independent study units, midterm and final exam

CONSULTATION AND FINANCIAL IMPLICATIONS, WHERE APPROPRIATE

This course is currently being offered regularly as a 'special topics course', so there should be no financial implication.

APPROVAL DATES

Curriculum Committee approval	<i>November 2016</i>
Faculty Council approval	<i>December 2016</i>
Date of Submission to CPRC/GSC	<i>January 2017</i>