

Memorandum

To: Academic Policies Council
From: Lawrence Fuller, Chemistry Dept Chair
Date: 11/22/2013
Re: Program changes to:
BS Track II – Environmental Chemistry

We are replacing & updating our Physical Chemistry Laboratory courses (CHE 341L & CHE 342L) as suggested by the American Chemical Society 5 year accreditation review dated 18 November 2011. We are replacing both of them with a new, single and redesigned comprehensive laboratory course.

This new and updated course: CHE 343L – Comprehensive Physical Chemistry Laboratory was submitted to UCC on 21 Sept 2013. This is a one credit 4 contact hour laboratory course that will replace CHE 341L & CHE 342L in all our chemistry programs. We anticipate that this course will be offered in both the fall and spring semesters.

The CHE 341L course will no longer be offered after the Spring 2014 semester. Currently enrolled students will be able to complete the major with CHE 341L.

We are also removing the CHE 473L-Environmental Chemistry Lab course from the program to lighten the laboratory load.

The CHE 434L – Advanced Chemistry Lab is being moved to an optional lab for the student to choose. The student may also choose as an option CHE 462L-Biochemistry Lab.

The CHE 475 – Geochemistry has been replaced with the option of any one of three new courses: GCH 436- Solid Earth Geochemistry; GCH 437-Earth Surface Geochemistry; or GCH 438-Isotope Geochemistry. CHE 475 will not be offered in the future.

There are no new resources needed to implement any of these changes.

Track II - Environmental Chemistry

78 cr

A. Core Requirements

CHE 111/212 - General Chemistry	8
CHE 322 - Analytical Chemistry	4
CHE 331/332 - Organic Chemistry	8
CHE 341/342 - Physical Chemistry	6
CHE 341L/342L - Physical Chemistry Lab	2
CHE 425 - Instrumental Analysis	4
CHE 434L - <u>Advanced Chemistry Lab</u>	1
CHE 451 - Inorganic Chemistry	3
CHE 461 - Biochemistry	3
CHE 473/473L - Environmental Chemistry w/Lab	4
CHE 475 - Geochemistry	3

CHE 494 - Capstone Research	2
<i>Select one of the following:</i>	
CHE 451L - Inorganic Lab	1
CHE 461L - Biochemistry Lab	

B. Cognate Requirements

MAT 210 - Calculus I	4
MAT 220 - Calculus II	4
MAT 318 - Statistics in the Sciences	3
BIO 120 - Molecular and Cellular Foundations	4
GEO 100 - Physical Geology	3
Biology or geology elective, under advisement, at the 300-400 level	3
<i>Select one sequence from the following:</i>	
PHY 111/212 - College Physics	8
PHY 112/213 - General University Physics	

*American Chemical Society certification requirements are satisfied in the BS Chemistry degree curriculum in Liberal Arts and Sciences.

Track II - Environmental Chemistry

75-76 cr

A. Core Requirements

CHE 111/212 - General Chemistry	8
CHE 322 - Analytical Chemistry	4
CHE 331/332 - Organic Chemistry	8
CHE 341/342 - Physical Chemistry	6
CHE 341L or 343L - Physical Chemistry Lab	1
CHE 425 - Instrumental Analysis	4
CHE 451 - Inorganic Chemistry	3
CHE 461 - Biochemistry	3
CHE 473 - Environmental Chemistry	3
<i>Select one of the following:</i>	
GCH 436 - Solid Earth Geochemistry	2
GCH 437 - Earth Surface Geochemistry	1
GCH 438 - Isotope Geochemistry	
CHE 494 - Capstone Research	
<i>Select one of the following:</i>	
CHE 451L - Inorganic Lab	
CHE 461L - Biochemistry Lab	
CHE 462L - Biochemistry Lab	
CHE 434L - Advanced Chemistry Lab	

B. Cognate Requirements

MAT 210 - Calculus I	4
MAT 220 - Calculus II	4
MAT 318 - Statistics in the Sciences	3
BIO 120 - Molecular and Cellular Foundations	4
GEO 100 - Physical Geology	3
Biology or geology elective, under advisement, at the 300-400 level	3
<i>Select one sequence from the following:</i>	
PHY 111/212 - College Physics	8
PHY 112/213 - General University Physics	

*American Chemical Society certification requirements are satisfied in the BS Chemistry degree curriculum in Liberal Arts and Sciences.