

Bachelor of Science in Chemistry Program Requirements Check-List 2011 - 2015 bulletin

1. B.S. IN CHEMISTRY MAJOR REQUIREMENTS¹

	Semester	Grade
CHEM A111 ACHM 111 (General Chemistry I and Lab) ¹	(4) _____	_____
CHEM A112 ACHM 112 (General Chemistry II and Lab)	(4) _____	_____
CHEM A331 ACHM 331 (Organic Chemistry I)	(3) _____	_____
CHEM A331L ACHM 331L (Organic Chemistry I Lab)	(1) _____	_____
CHEM A332 ACHM 332 (Organic Chemistry II)	(3) _____	_____
CHEM A332L ACHM 332L (Organic Chemistry II Lab)	(1) _____	_____
CHEM A310 ACHM 310 (Methods of Research & Computers)	(1) _____	_____
CHEM A321 ACHM 321 (Quantitative Analysis)	(3) _____	_____
CHEM A321L ACHM 321L (Quantitative Analysis Lab)	(1) _____	_____
BIOL A541 ABIO 541 (Biochemistry I) ²	(3) _____	_____
CHEM A541 ACHM 541 (Physical Chemistry I)	(3) _____	_____
CHEM A541L ACHM 541L (Physical Chemistry I Lab)	(1) _____	_____
CHEM A542 ACHM 542 (Physical Chemistry II)	(3) _____	_____
CHEM A542L ACHM 542L (Physical Chemistry II Lab)	(1) _____	_____
CHEM A311 ACHM 311 (Introduction Inorganic Chemistry)	(3) _____	_____
CHEM A311L ACHM 311L (Introduction Inorganic Chemistry Lab)	(1) _____	_____
CHEM A511 ACHM 511 (Advanced Inorganic Chemistry)	(3) _____	_____
CHEM A511L ACHM 511L (Advanced Inorganic Chemistry Lab)	(1) _____	_____
CHEM A522 ACHM 522 (Instrumental Analysis and Lab)	(4) _____	_____
CHEM A499 ACHM 499 (Senior Research) ³	(2-3) _____	_____
CHEM A499 ACHM 499 (Senior Research) ³	(1-3) _____	_____

Total Hours Required 47 - 50 credit hours

2. GENERAL EDUCATIONAL REQUIREMENTS

A. Intellectual and Practical Skills

	Semester	Grade	Test Out
Critical Inquiry			
AFCI A101 AFCI 499 (Critical Inquiry)	(1) _____	_____	Transfer exemption _____
English			
ENGL A101 AEGL 101 (Composition) ⁴	(3) _____	_____	
ENGL A102 AEGL 102 (Composition and Literature) ⁴	(3) _____	_____	
Oral Communication (choose one of the following:)			
COMM 201 or COMM 241 ACOM 201 or ACOM 241	(3) _____	_____	
Mathematics			Test Out
MATH A111 AMTH 111 (Pre-Calc I) ⁵	(3) _____	_____	_____
MATH A112 AMTH 112 (Pre-Calc II) ⁵	(3) _____	_____	_____
MATH A141 AMTH 141 (Calculus I) ⁵	(4) _____	_____	
MATH A142 AMTH 142 (Calculus II)*	(4) _____	_____	
* MATH A142 is a prerequisite for CHEM A541			
Undergraduate Writing Proficiency			
Junior Writing Portfolio turned in _____ approved _____ OR ENGL 201 (Writing in the Univ.)	(3) _____	_____	
Writing Intensive Requirement (3 courses completed after completion of ENGL 102, at least one in Chem.)			
CHEM A541L (Physical Chemistry I Lab)	_____	_____	Others _____
CHEM A542L (Physical Chemistry II Lab)	_____	_____	_____
CHEM A511L (Advanced Inorganic Chemistry Lab)	_____	_____	_____
(transfer students need one course for each 30 hours at USCA)			

Total Hours Required 18 credit hours (24 hr MTH 111 plcmt)

B. Knowledge of Human Cultures and the Physical and Natural World

	Semester	Grade
Natural Sciences		
BIOL A121 ABIO 121 (Biology I)	(4) _____	_____
PHYS A211 APHY 211 (Calc Physics I) OR PHYS A201* APHY 201 (General Physics I)	(4) _____	_____
PHYS A212 APHY 212 (Calc Physics II) ⁶ PHYS A202* APHY 202 (General Physics II)	(4) _____	_____
*Note: PHYS 201 and 202 may be substituted for 211 and 212 in some cases with permission of advisor.		

	Semester	Grade
History of Civilization		
HIST A101 or HIST A102 AHST 101 or AHST 102 (circle one)	(3) _____	_____
Second Language at least 2 semesters of the same language		
_____ ()	(4) _____	_____
_____ ()	(4) _____	_____

B. Knowledge of Human Cultures and the Physical and Natural World (continued)

Social and Behavioral Sciences (at least 2 areas, at least 6 credits)⁷

Psychology, Sociology, Anthropology, Economics, Political Science, Geography, Honors

Course Num.	Course Title	√ non-Western ⁷	Semester	Grade
_____	(_____)	___	() _____	_____
_____	(_____)	___	() _____	_____
Total at least 6 credit hours				

Humanities (at least 2 areas, at least 9 credits)⁷

Communications (last two digits must be in 50s or 60s), History, Literature, Art History, Music History, Theater History, Religion, Philosophy (not logic), selected Language courses, Humanities (AHUM), Honors (AHON)

Course Num.	Course Title	√ non-Western ⁷	Semester	Grade
_____	(_____)	___	() _____	_____
_____	(_____)	___	() _____	_____
_____	(_____)	___	() _____	_____
Total at least 9 credit hours				

Total Hours Required 38 credit hours

C. Personal and Social Responsibility

American Political Institutions

	Semester	Grade
POLI A201 or HIST A201 or HIST A202 APLS 201 or AHST 201 or AHST 202 (circle one)	(3) _____	_____

ICE events

Students are required to attend at least 2 ICE approved events for each semester enrolled at USCA. ALL of these events must be completed prior to application for graduation.

First Year	Second Year	Third Year	Fourth Year	Extra Semesters
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Total Hours Required 16 ICE events + 3 credit hours

3. COGNATE OR MINOR

Cognate: An additional concentration of study intended to support course work in the major. Cognates may be distributed over more than one subject area and more than one department. Cognate courses should be junior-senior level courses and must be approved by the major department. Cognate courses cannot be counted as major or general education requirements with the exception of free electives. Classes that can count as cognate include any 300+ course, AENG 200+, APHY 212, AMTH 241/242, & ABIO 242. A minor in another discipline will replace the cognate requirement.

Students may choose to complete the 12 credit hour cognate requirement with either:

•4 three and/or four credit hour courses possibly including one summer course.

OR •3 four credit hour courses (e.g. AMTH 241, APHY 212, ABIO 242)

[A partial list of 4 credit cognates includes; AMTH 241, APHY 212, APLS 301, AHST 300, ASCY 310, ABIO 242, several 300+ ABIO courses including ABIO 302/312/315/316/320/325/330.]

Minor: Requirements are established by the college/school which offers the minor. See the specific department listings for specific minor requirements. Students who wish to have a minor may have to take more hours than those who select a cognate.

COGNATE / MINOR (circle one)

[additional courses for a minor]

Course Num.	Course Title	Semester	Grade	Course Num.	Course Title	Semester	Grade
BIOL A541	(Biochem. I)	(3)	_____	_____	(_____)	()	_____
_____	(_____)	()	_____	_____	(_____)	()	_____
_____	(_____)	()	_____	_____	(_____)	()	_____
_____	(_____)	()	_____	_____	(_____)	()	_____

Cognate: Total 12 credit hours

Minor: Dept. _____ Total _____ credit hours

4. ELECTIVES (A total of at least 120 credit hours is required for graduation)

Course Num.	Course Title	Semester	Grade
_____	(_____)	()	_____
_____	(_____)	()	_____

- 1 - A grade of C or higher is required in all chemistry courses counting toward the degree. Students placing in Mathematics 108 or below will successful complete these courses before enrolling in any chemistry course.
- 2 - ABIO 121 and ACHM 332 are prerequisites for ABIO 541.
- 3 - Completion of a thesis and seminar on the research project are required for graduation.
- 4 - Students must complete English 101/102 with a grade of C or better in order to fulfill general education requirements. Freshmen should take English in their first semester unless they have already completed the 101/102 requirement. Students must complete AEGL 102 with a grade of C or better before taking other English courses and for any course to count as Writing Intensive including ACHM 541L, 542L, and 511L.
- 5 - Freshmen should take Math in their first semester unless they have already completed their math requirement. AMTH 111 and AMTH 112 may be taken in any order or at the same time. AMTH 111 and 112 count as elective credits but are pre-requisites for AMTH 141/142.
- 6 - APHY 212 can be counted toward a cognate.
- 7 - At least three (3) credit hours of the degree must be in non-Western studies. A list of courses that meet this requirement can be found in the Academic Regulations/General Education Section of the appropriate Student Bulletin. (May 2013 Revised)