

Bachelor of Science in Chemistry Program Requirements Check-List 2009 catalog

1. B.S. IN CHEMISTRY MAJOR REQUIREMENTS¹

		Semester	Grade
ACHM 111	(General Chemistry I and Lab)	(4) _____	_____
ACHM 112	(General Chemistry II and Lab)	(4) _____	_____
ACHM 310	(Methods of Research & Computers)	(1) _____	_____
ACHM 331	(Organic Chemistry I)	(3) _____	_____
ACHM 331L	(Organic Chemistry I Lab)	(1) _____	_____
ACHM 332	(Organic Chemistry II)	(3) _____	_____
ACHM 332L	(Organic Chemistry II Lab)	(1) _____	_____
ACHM 321	(Quantitative Analysis)	(3) _____	_____
ACHM 321L	(Quantitative Analysis Lab)	(1) _____	_____
ABIO 541	(Biochemistry I) ¹¹	(3) _____	_____
ACHM 541	(Physical Chemistry I)	(3) _____	_____
ACHM 541L	(Physical Chemistry I Lab)	(1) _____	_____
ACHM 542	(Physical Chemistry II)	(3) _____	_____
ACHM 542L	(Physical Chemistry II Lab)	(1) _____	_____
ACHM 511	(Inorganic Chemistry)	(3) _____	_____
ACHM 511L	(Inorganic Chemistry Lab)	(2) _____	_____
ACHM 522	(Instrumental Analysis and Lab)	(4) _____	_____
ACHM 499	(Senior Research) ²	(2-3) _____	_____
ACHM 499	(Senior Research) ²	(1-3) _____	_____

Total Hours Required 44-47 credit hours

ACHM 550 (Biochemistry) STRONGLY recommended elective (3) _____

Offered in Spring semester of EVEN numbered years

2. GENERAL EDUCATIONAL REQUIREMENTS

A. Skills and Competencies

		Semester	Grade	Test Out
English				
AEGL 101	(Composition) ³	(3) _____	_____	
AEGL 102	(Composition and Literature) ⁴	(3) _____	_____	

Applied Speech Communication (choose one of the following):

ACOM 201, ACOM 241, ACOM 342 (3) _____

Mathematics

AMTH 111	(Pre-Calc I)*	(3) _____	_____	_____
AMTH 112	(Pre-Calc II)*	(3) _____	_____	_____
AMTH 141	(Calculus I)	(4) _____	_____	
AMTH 142	(Calculus II) [@]	(4) _____	_____	

*Pre-requisites for AMTH 141 can be taken in any order or at same time

@ AMTH 142 is a prerequisite for ACHM 541

Second Language⁶ at least 2 semesters of the same language

_____ () (4) _____

_____ () (4) _____

Undergraduate Writing Proficiency⁷

Junior Writing Portfolio as described in Student Bulletin turned in _____ approved _____

Total Hours Required 31 credit hours (Math 111/112 plcmt) 25 credit hours (Math 141 plcmt)

B. Methods and History of Disciplines

		Semester	Grade
Natural Sciences			
APHY 211	(Calc Physics I)	(4) _____	_____
APHY 212	(Calc Physics II) ⁸	(4) _____	_____
OR	OR		
APHY 201*	(General Physics I)	(4) _____	_____
APHY 202*	(General Physics II)	(4) _____	_____

*Note: APHYS 201 and 202 may be substituted for 211 and 212 in some cases with permission of advisor.

ABIO 121 (Biology I) (4) _____

Social and Behavioral Sciences (at least 2 areas, at least 6 credits)⁹

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

Course Num.	Course Title	√ non-Western ⁹	Semester	Grade
_____	(_____)	___	() _____	_____
_____	(_____)	___	() _____	_____
_____	(_____)	___	() _____	_____
Total at least 6 credit hours				

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

History, Literature, Fine Arts History, Religion, Philosophy (not logic), Humanities (AHUM acronym), Religion, Foreign Language (200 level and above)

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

History of Civilization

AHST 101 or AHST 102 (circle one) (3) _____

American Political Institutions

APLS 201, or AHST 201, or AHST 202 (circle one) (3) _____

Total Hours Required 33 credit hours

3. Cognate or Minor¹⁰

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.

Minor: Requirements are established by the college/school which offers the minor. See the department listings for specific minor requirements in your chosen area.

Cognate / Minor (circle one)

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

Note: APHYS 212 may be counted toward cognate

Cognate: Total 12 credit hours
Minor: Total ____ credit hours

4. Electives

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

Note: AMTH 111 and 112 count as elective credits **Total 4+ credit hours**

5. 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
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

- 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. A maximum of 48 hours of Chemistry courses can be applied toward graduation.
- 2 - Completion of a thesis and seminar on the research project are required for graduation.
- 3 - Students must complete English 101 with a grade of C or better in order to fulfill general education requirements.
- 4 - Students must complete AEGL 102 with a grade of C or better in order to fulfill general education requirements and before taking other English courses.
- 5 - Equivalent computer science course emphasizing problem-solving and programming in a procedural language may also be acceptable.
- 6 - Two (2) semesters of the same language (French, German or Russian is recommended for those planning graduate studies in Chemistry).
- 7 - For undergraduate writing proficiency, see Proficiency Portfolio in Writing described in the Undergraduate Student Bulletin under Academic Programs.
- 8 - APHY 212 can be counted toward a cognate.
- 9 - 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 on pg 32 in the Academic Regulations: General Education Requirements section of the bulletin.
- 10 - Students who wish to have a minor may have to take more hours than those who select a cognate.
- 11 - ABIO 121 and ACHM 332 are prerequisites for ABIO 541