

Bachelor of Arts in Chemistry, Secondary Education Certification

B.A. Plan C

Secondary Education Option

The B.A. degree in Chemistry emphasizes the liberal arts with specialization in chemistry and offers the opportunity to develop a broad background for students preparing for a variety of careers. This B.A. degree option combines with education courses and prepares the student for a career in middle school and/or high school teaching.

Upon completion of this degree program the student will have acquired:

1. competence in the basic content of organic, inorganic, physical, analytical chemistry and biochemistry;
2. the ability to carry out experimental protocols, and analyze and interpret data;
3. the ability to communicate effectively in both oral and written presentations;
4. proficiency in the use of appropriate computer applications and information technology as related to chemistry;
5. adequate preparation to compete successfully in a professional school or a science-related career;
6. an understanding of the impact of chemistry in a global/societal context.

	Hours
Core Areas A,B,C,D,& E	42
(see pages 128-134 in undergraduate catalogue)	
• Core Area A must include MATH 1113*	
• Core Area D must include MATH 1634* and PHYS 1111 or 2211, PHYS 1112 or 2212 is recommended (*2 hrs moved to Area F)	
Core Area F: Courses specific to the major	18
<u>CHEM 1211K</u>	4
<u>CHEM 1212K</u>	4
<u>CHEM 2411 and 2411L</u>	4
MATH 2644	4
MATH credit from Area A and D	2
Concentration	60
<i>Courses from the major:</i>	
<u>CHEM 3422 and 3422L</u>	
<u>CHEM 3310K</u>	4
<u>CHEM 3510</u> or <u>3521</u> or <u>3522</u>	4
<u>CHEM 4610</u>	3
<u>CHEM 4711</u>	3
CHEM electives**	3
	6

Courses from supporting disciplines:

SEED 2271	
SEED 2706	3
CEPD 2102	3
Foreign Language 2001***	2
	3

*Professional Education Concentration*****

CEPD 4101	
SEED 4271	3
SEED 4242	3
SEED 4286	4
SEED 4289	9
	3

*Science Concentration Electives++
(from one area at 3000 level or above)*

4

TOTAL 120

General Restrictions: No D's are permitted in a major course or professional education. A maximum of 3 hours of research is allowed in the degree program. Students must complete 6 hours of WAC courses.

**Chemistry Electives: CHEM 3130 and CHEM 3140 cannot be used here

***This degree requires students to complete 2001 (or equivalent) in a foreign language.

****PHYS 1111 and 1112 or PHYS 2211 and 2212 are required for this degree. Students must pass a competency test in Media and Instructional Technology or take MEDT 2401.

++Must be science courses approved for an Arts and Science major in one concentration area.

**Recommended Plan of Study for B.A. in Chemistry,
Secondary Education Certification Option**

This semester-wise plan is designed to ensure that students take Chemistry courses and their pre-requisites and other required courses in a timely fashion to graduate in four years.

FRESHMAN FALL		FRESHMAN SPRING	
CHEM 1211K – Principles of Chem I	4	CHEM 1212K - Principles of Chem II	4
MATH 1113 – PreCalculus	4	MATH 1634 – Calculus I	4
ENGL 1101 – English Composition I	3	ENGL 1102 – English Composition II	3
POLS 1101 – American Government	3	COMM 1110 – Public Speaking	3
XIDS 2001 – What do you know about_?	1	CEPD 2102 – Developmental Psychology	2
Total	15	Total	16

SOPHOMORE FALL		SOPHOMORE SPRING	
CHEM 2411/2411L – Organic Chem I	4	CHEM 2422/2422L – Organic Chem II	4
MATH 2644 – Calculus II	4	CHEM 2130 – Chem Sophomore Seminar	1
PHYS 1111 or 2211 with lab	4	PHYS 1112 or 2212 with lab	4
HIST	3	SEED 2271 – Intro to Secondary Education	3
		Core	3
Total	15	Total	15

JUNIOR FALL		JUNIOR SPRING	
CHEM 3310 – Analytical Chemistry	4	CHEM Elective	3
CHEM 3510 – Survey of Physical Chemistry	3	CHEM 4610 – Inorganic Chemistry	3
SPED 2706 – Special Education	3	CEPD 4101 – Educational Psychology	3
HIST	3	Science Elective	4
FORL 1002	3	FORL 2001	3
Total	16	Total	16

SENIOR FALL		SENIOR SPRING	
Core	3	SEED 4286 – Internship	9
SEED 4271 – Curriculum	3	SEED 4289 – Internship Seminar	3
SEED 4242 – Instruction	4		
CHEM 4711 – Biochemistry I	3		
CHEM Elective	3		
Total	16		12