

BACHELOR OF SCIENCE IN CHEMISTRY
Secondary Teaching Emphasis

FALL SEMESTER

SPRING SEMESTER

YEAR 1

CHEM 111 Principles of Chemistry I ^{LAC, Area 6}	5	CHEM 112 Principles of Chemistry II	5
BIO 110 Principles of Biology ^{LAC, Area 6}	4	BIO 111 Survey of Organismal Biology	4
AST 100 General Astronomy	4	GEOL 201 Physical Geology	4
LAC	3	LAC	<u>3</u>
Speech Proficiency ¹			16
	16		

YEAR 2

CHEM 331 (F) Organic Chemistry I	5	CHEM (S) 332 Organic Chemistry II	5
PHYS 220 Introductory Physics I ^{LAC, Elective}	5	PHYS 221 Introductory Physics II	5
<u>PTEP I:</u>		MATH 131 Calculus & Analytic Geometry	4
STEP 161 ^{2,3} Observation & Analysis of Secondary Teaching I	2	LAC	<u>3</u>
ET 249 ³ Technology in Education: Secondary	1		17
EDF 366 ³ Conceptions in Schooling	<u>4</u>		
	17		

YEAR 3

CHEM 321 (F) Chemical Analysis	4	CHEM 441 (S) Inorganic Chemistry I	2
SCI 291 ⁷ Scientific Writing	3	CHED 495 (S) Seminar in Teaching Chemistry	2
<u>PTEP II:</u>		CHEM 360 ⁸ Environmental Chemistry	2
STEP 262 ⁴ Observation & Analysis of Secondary Teaching II	2	CHEM 450 (S) Survey of Physical Chemistry	4
EDSE 360 Adaptation/Modification & Integration Curriculum--Secondary Exceptional Learner	3	LAC	<u>6</u>
EPSY 349 Ed Psyc for Secondary Teachers	<u>3</u>		16
	15		

YEAR 4

<u>PTEP III:</u>		Step 490 Secondary Student Teaching	<u>15</u>
SCED 441 ⁶ Methods of Teaching Secondary School Science	3		15
STEP 363 ^{5,6} Clinical Experience-Secondary	2		
EDRD 340 Secondary Content Area Literacy	3		
ET 349 Educational Technology Applications for Secondary Teaching	1		
LAC	<u>6</u>		
	15		

¹ Must satisfy Equivalency Requirement for COMM 100 & COMM 103.

² 2 hrs seminar at night and 2 hrs lab at partnership school one day per week.

³ These PTEP I courses are corequisites and should be taken concurrently.

⁴ These are PTEP II courses and meet 2 hrs--one day per week at partnership school.

⁵ 4 hrs in 2 days, 2-hr block per day.

⁶ These PTEP III courses are corequisites and must be taken concurrently. PTEP I & II must be completed before taking these courses.

⁷ With advisor approval, students can substitute for SCI 291 (3)--Scientific Writing for their Intermediate Composition requirement

⁸ Course offered spring only of odd numbered years.

CHEMISTRY AND BIOCHEMISTRY

Contact Information:

Main Office Room Number: Ross 3480

Main Office Telephone Number: (970) 351-2559

Department Web Page: http://www.unco.edu.chemist/chem_hp.htm

- A. The four-year plan described on the other side of this sheet is only a suggested track in which to complete this major. The student must meet with his/her advisor to determine an appropriate plan.
- B. Upper-level courses are generally taught only one semester per year and are marked on the sheet as F (Fall), S (Spring) or I (Irregular). If they are taught once per year and are a two-semester series, the first semester will generally be taught in the Fall. CHEM 360 as specified earlier is taught in the Spring every other year. In this plan courses are listed in order of required prerequisites first.
- C. Each major requires 120 total credits prior to graduation.
- D. The following apply to those with an *Education* emphasis in Chemistry:
 1. Departmental requirements for admission to PTEP:
 - a. Student should be in his/her second year of chemistry.
 - b. Student must have at least a 2.50 GPA in chemistry courses.
 - c. Student should have courses from at least two different UNC chemistry professors.
 - d. Student must successfully complete a departmental PTEP interview.
 2. Departmental requirements for application for student teaching:
 - a. Student should have completed CHEM 332 and CHEM 321 or equivalent.
 - b. Student should be at least half way through his/her junior year.
 - c. Student must have at least a 2.50 GPA in chemistry courses.
 3. ACS Certification in Chemical Education:

Students who wish to be certified in Chemical Education by the American Chemical Society must complete CHEM 421--Instrumental Analysis (4 hours) and CHEM 443--Inorganic Chemistry Laboratory (1 hour) in addition to the requirements listed above and take CHEM 451/CHEM 453--Physical Chemistry I and Physical Chemistry I Lab and CHEM 452/CHEM 454--Physical Chemistry II and Physical Chemistry II Lab in place of the one-semester of CHEM 450--Survey of Physical Chemistry. Should you choose this route, the lecture and laboratory in the physical chemistry series are separate credit and are typically taken concurrently--in any case, the lecture must be taken either concurrently or would be considered a prerequisite to the laboratory.