



**DEGREE WORKSHEET FOR:**  
**BS Chemistry, Secondary Teaching Emphasis**  
**2018-2019 Catalog**  
**Degree Requirements – 120 credits**

YEAR 1- FALL (16 credits)		YEAR 1- SPRING (16 credits)	
CHEM 111/111L Principles of Chemistry I (LAC Area 6)	4/1 credits	CHEM 112/112L Principles of Chemistry II	4/1 credits
BIO 110 Principles of Biology (LAC Area 6)	4 credits	BIO 111 Organismal Biology	4 credits
AST 100 or MET 205(LAC Area 6)	4 credits	GEOL 201 Physical Geology	4 credits
Liberal Arts Core <sup>1</sup>	3 credits	Liberal Arts Core <sup>1</sup>	3 credits
YEAR 2- FALL (14 credits)		YEAR 2-SPRING (15 credits)	
CHEM 331/331L Organic Chemistry I (F)	4/1 credits	CHEM 332/332L Organic Chemistry II (S)	4/1 credits
PHYS 220 Introductory Physics I (LAC Area 6)	5 credits	PHYS 221 Introductory Physics II	5 credits
MATH 131 Calculus I (LAC Area 2)	4 credits	STEP 161 Observation and Analysis of Sec. Teaching I <sup>2</sup>	2 credits
		EDF 366 Conceptions in Schooling <sup>2</sup>	3 credits
YEAR 3- FALL (15 credits)		YEAR 3- SPRING (16 credits)	
CHEM 321 Chemical Analysis (F)	4 credits	SCI 291 Scientific Writing (LAC Area 1b)	3 credits
STEP 262 Observation Analysis of Sec. Teaching II <sup>3</sup>	2 credits	SCED 440 Strategies Teaching Secondary Science (S)	1 credit
EDSE 360 Adaptations/Modifications & Integration <sup>3</sup>	3 credits	CHEM 360 Environmental Chemistry <sup>5</sup>	2 credits
PSY 349 Ed. Psychology for Secondary Teachers <sup>3</sup>	3 credits	CHEM 450/450L Survey of Physical Chemistry (S)	3/1 credits
CHEM 441 Inorganic Chemistry I	3 credits	Liberal Arts Core <sup>1</sup>	6 credits
YEAR 4- FALL (14 credits)		YEAR 4- SPRING (14 credits)	
SCED 441 Methods Teach Sec. School Science <sup>4</sup> (F)	3 credits	STEP 464 Secondary Student Teaching	14 credits
STEP 363 Clinical Experience-Secondary <sup>4</sup>	2 credits	Chemistry Assessment Exam <sup>6</sup>	0 credits
EDRD 340 Secondary Content Area Literacy <sup>4</sup>	3 credits		
Liberal Arts Core <sup>1</sup>	3 credits		
Elective <sup>7</sup> or Liberal Arts Core <sup>1</sup>	3 credits		

**Admission Requirement.**

**Minor Required – No minor required.**

**Notes – see page 2.**

**Contact Information – Department of Chemistry & Biochemistry**

**Ross Hall Room 3480, 970-351-2559**

**Department Web Page: <http://www.unco.edu/nhs/chemistry/>**

This worksheet is a recommended schedule to complete your bachelor's degree in 4 years. Every UNC student must meet the following requirements in order to graduate with a bachelor's degree: earn a minimum of 120 semester credit hours; possess a minimum of a 2.00 cumulative grade point average; have at least 40 credit hours in courses designated as Liberal Arts Core; meet all degree requirements in the student's major field of study. Each major and/or emphasis may have additional requirements necessary for graduation. **Students must consult with their major advisor to receive information on any additional graduation requirements.**

## Notes

- 1 Remaining LAC credits = 18 credits. Students may select courses from LAC areas 7 and 8 that also count for areas 3, 4, or 5.
- 2 STEP 161 Observation & Analysis of Secondary Teaching I. 2 hours seminar at night and 2 hours lab at partnership school one day per week. STEP 161; EDF 366 are PTEP I courses. They are co-requisites and should be taken concurrently.
- 3 STEP 262 Observation and Analysis of Secondary Teaching II. 2 hours seminar at night and 2 hours lab at partnership school one day per week. STEP 262, EDSE 360, EPSY 349 are PTEP II courses and should be taken concurrently. In exceptional cases the PTEP I and PTEP II courses may be taken simultaneously.
- 4 STEP 363 Clinical Experience-Secondary. 4 hours in 2 days, 2-hr. block per day. SCED 441; STEP 363; EDRD 340; ET 449 are PTEP III courses. They are co-requisites and should be taken concurrently. PTEP I & PTEP II must be completed before taking these courses.
- 5 CHEM 360 Environmental Chemistry offered spring only of odd numbered years.
- 6 All students in the program must take an assessment examination prior to graduation.
- 7 ET 449 - Integration of Tech in Sec Ed Pedagogy (3) is a recommended elective for this major.

This program is designed to prepare students as secondary school chemistry teachers licensed in science by the Colorado Department of Education. In addition to a strong background in chemistry, students will receive training in biological sciences, physics, earth sciences and mathematics. Students completing this degree can be certified by the American Chemical Society. See advisor for details.

Students graduating with this degree emphasis will be well prepared to teach chemistry and other sciences in junior and senior high school. Students completing this program will be prepared to pursue graduate study in chemical education or science education.

This program will take four to five years to complete depending on high school background and the point in the educational career at which the program is entered.

- A. Upper-level courses are generally taught only one semester per year and are marked on the sheet as F (Fall), S (Spring). If they are taught once per year and are a two-semester series, the first semester will generally be taught in the Fall. In this plan courses are listed in order of required prerequisites first.
- B. Students must have at least a 2.5 GPA in chemistry courses prior to application for student teaching.
- C. Students majoring in chemistry must earn a grade of "C" or better (C- is not acceptable) in all courses having a CHEM prefix which count toward the major.
- D. ACS Certification in Chemical Education. Students who wish to be certified in Chemical Education by the American Chemical Society must complete CHEM 381/381L, CHEM 421, CHEM 442, CHEM 443, MATH 132 and MATH 233 in addition to the requirements listed above, and may either substitute CHEM 451, CHEM 451L, CHEM 452, and CHEM 452L in place of the one-semester of CHEM 450/450L or take CHEM 481, CHEM 482, CHEM 481L, and CHEM 482L in place of the one-semester of CHEM 381. Note that the specific option chosen may indicate additional pre-requisites that need to be taken.

### PTEP Program Requirements:

If you are seeking licensure in your program area, the following items are required to complete your program.

- Completion of Application for Initial Admission to PTEP
- Completion of Full Admission to PTEP
- Completion of Application for Student Teaching
- Completion of content specific PRAXIS test prior to Student Teaching
- Candidates may not take extra courses with Student Teaching without prior approval from the Program Coordinator and the STE Director.
- All PTEP Field Experiences and methods courses need to be successfully completed prior to Student Teaching.

- Student Teaching outside the supervision of UNC Faculty may or may not be approved.
- Teacher Candidates will not be placed in a school where they were once students or where they have a close relative attending and/or working.
- Teacher education and educator preparation licensure programs do not accept Professional Teacher Education Program (PTEP) or field based courses that are more than ten years old. PLEASE NOTE: Teacher Candidates have the right to petition this policy at the discretion of the program coordinator.