



**DEGREE WORKSHEET FOR:**  
**BS Chemistry, Chemistry Emphasis (ACS Certified)**  
**2017-2018 Catalog**  
**Degree Requirements – 120 credits**

YEAR 1-FALL (15 credits)		YEAR 1-SPRING (15 credits)	
CHEM 111/111L Principles of Chemistry I (LAC Area 6)	4/1 credits	CHEM 112/112L Principles of Chemistry II	4/1 credits
ENG 122 College Composition (LAC Area 1a)	3 credits	MATH 132 Calculus II (LAC Area 2)	4 credits
MATH 131 <sup>2</sup> Calculus I (LAC Area 2)	4 credits	Liberal Arts Core <sup>1</sup>	6 credits
Liberal Arts Core <sup>1</sup>	3 credits		
YEAR 2-FALL (14 credits)		YEAR 2-SPRING (16 credits)	
CHEM 331/331L Organic Chemistry I (F)	4/1 credits	CHEM 332/332L Organic Chemistry II (S)	4/1 credits
PHYS 240 General Physics I (LAC Area 6)	5 credits	PHYS 241 General Physics II	5 credits
Math 233 Calculus III	4 credits	SCI 291 <sup>3</sup> Scientific Writing (LAC Area 1b)	3 credits
		Liberal Arts Core <sup>1</sup>	3 credits
YEAR 3-FALL (16 credits)		YEAR 3-SPRING (15 credits)	
CHEM 321 Chemistry Analysis (F)	4 credits	CHEM 421 Instrumental Analysis (S)	4 credits
CHEM 452/452L Physical Chemistry I (F)	4/1 credits	CHEM 451/451L Physical Chemistry II (S)	4/1 credits
CHEM 381/381L <sup>4</sup> or CHEM 481 (F)	4 credits	Liberal Arts Core <sup>1</sup>	1 credits
Liberal Arts Core <sup>1</sup> (F)	3 credits	Chemistry or General Electives <sup>5</sup>	5 credits
YEAR 4-FALL (14 credits)		YEAR 4-SPRING (15 credits)	
Chemistry or General Electives <sup>5</sup>	10 credits	Chemistry or General Electives <sup>5</sup>	10 credits
CHEM 499 Seminar & Research in Chemistry	1 credit	CHEM 499 Seminar & Research in Chemistry	1 credit
CHEM 441 Inorganic Chemistry (F)	3 credits	CHEM 442 Inorganic Chemistry II (S)	3 credits
		CHEM 443 Inorganic Chemistry Lab (S)	1 credit
		Chemistry Assessment Exam <sup>6</sup>	0 credits

**Admission Requirement – No separate admission requirement.**

**Minor Required – No Minor required.**

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

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

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

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 Students may select courses from LAC areas 7 and 8 that also count for areas 3, 4, or 5.
- 2 Students who lack sufficient preparation in mathematics may need to start in MATH 124 College Algebra (4), MATH 125 Plane Trigonometry (3), or MATH 127 Elementary Functions. Consult your advisor.
- 3 With advisor approval, students can substitute ENG 123 for SCI 291 Scientific Writing (3).
- 4 Students may choose CHEM 381/381L Principles of Biochemistry and Lab (3/1 credits) or CHEM 481 General Biochemistry I (3 credits).
- 5 Chemistry Electives. The following courses are recommended as chemistry electives. Consult your advisor for additional chemistry courses that can satisfy the chemistry electives.
  - CHEM 482 General Biochemistry II (3)
  - CHEM 483 Experimental Biochemistry I (1)
  - CHEM 484 Experimental Biochemistry II (1)
  - 500-level Chemistry Course (3)
- 6 All students must take a chemistry major assessment exam prior to graduation.

Students receiving this degree, designed to give a broad background and an in-depth foundation in chemistry, will be certified by the American Chemical Society. Students will work with a faculty member on an independent research project in chemistry.

Students graduating with this emphasis are prepared to pursue graduate study in chemistry, professional schools (e.g., chemical engineering, medicine, dentistry, veterinary medicine and other health sciences) or an entry-level position with a chemical or petroleum industry.

- A. The four-year plan described on the other side of this sheet is a suggested track for completing this major. You must meet with your advisor each semester 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) or S (Spring). In this plan courses are listed in order of required prerequisites first.
- C. Some lecture courses are separate from laboratory; e.g., CHEM 331/CHEM 331L Organic Chemistry I and Organic Chemistry I Lab. In these cases, both lecture and laboratory are intended to be taken concurrently. Separate grades for lecture and lab will be issued.
- D. All students in the program must take an assessment examination before graduation.
- E. Graduate level CHEM courses are recommended for juniors and seniors. Other recommended electives include MATH 221, MATH 335, STAT 150, PHYS 321, and PHYS 343.
- F. 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. In addition, a grade of "C" or better in courses with a CHEM prefix is required in order to satisfy the prerequisites for most CHEM courses.
- G. It is recommended that students have a fundamental background in computers.