



**DEGREE WORKSHEET FOR:
BS Chemistry, Chemistry Emphasis (ACS Certified)
2012-2013 Catalog
Degree Requirements – 120 credits**

YEAR 1- FALL (15 credits)		YEAR 1- SPRING (15 credits)	
ENG 122 College Composition (LAC Area 1a)	3 credits	CHEM 112 Prin. of Chemistry II	5 credits
CHEM 111 Prin. of Chemistry I (LAC Area 6)	5 credits	MATH 132 Calculus II (LAC Area 2)	4 credits
MATH 131 ² Calculus I (LAC Area 2)	4 credits	Liberal Arts Core ¹	6 credits
Liberal Arts Core ¹	3 credits		
YEAR 2- FALL (14 credits)		YEAR 2-SPRING (16 credits)	
CHEM 331 Organic Chemistry I (F)	5 credits	CHEM 332 Organic Chemistry II (S)	5 credits
PHYS 240 General Physics 1 (LAC Area 6)	5 credits	PHYS 241 General Physics II	5 credits
Math 233 Calculus III	4 credits	SCI 291 ³ Scientific Writing (LAC Area 1b)	3 credits
		Liberal Arts Core ¹	3 credits
YEAR 3- FALL (14-16 credits)		YEAR 3- SPRING (14 credits)	
CHEM 321 Chemistry Analysis (F)	4 credits	CHEM 421 Instrumental Analysis (S)	4 credits
CHEM 451 Physical Chemistry I (F)	4 credits	CHEM 441 Inorganic Chemistry I (S)	2 credits
CHEM 453 Physical Chemistry I Lab (F)	1 credit	CHEM 442 Inorganic Chemistry II (S)	2 credits
CHEM 381 ⁴ or CHEM 481 (F)	3-4 credits	CHEM 443 Inorganic Chemistry Lab (S)	1 credit
Liberal Arts Core ¹	2-3 credits	CHEM 452 Physical Chemistry II (S)	4 credits
		CHEM 454 Physical Chemistry II Lab (S)	1 credit
YEAR 4- FALL (14-16 credits)		YEAR 4- SPRING (14 – 16 credits)	
Chemistry Electives ⁵	1-3 credits	Chemistry Electives ⁵	1-3 credits
Elective Course(s)	9 credits	Elective Course(s)	9 credits
CHEM 499 Seminar & Research in Chemistry	1 credit	CHEM 499 Seminar & Research in Chemistry	1 credit
Liberal Arts Core ¹	3 credits	Liberal Arts Core ¹	3 credits

Admission Requirement – No separate 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.**

Chemistry-Chemistry Emphasis 12-13

05-10-13

Notes

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

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 upper-level courses are separate from laboratory; e.g., 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 these cases, the two are typically taken concurrently—in any case, the lecture must be taken either concurrently or would be considered a prerequisite to the laboratory.
- 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 132, 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.
- G. It is recommended that students have a fundamental background in computers.