Colorado Community College to UNC Transfer Guide*

BS Chemistry, Industrial Chemistry Concentration

2023-2024 Catalog

Degree Requirements – 120 credits

*Guide for students transferring to the University of Northern Colorado from a Colorado community college for the purpose of completing a bachelor's degree. Courses marked as (***bold**) are UNC equivalent courses (if applicable) upon transfer. UNC Liberal Arts Curriculum (LAC) is waived with completion of AA/AS degree (if an AA/AS degree is not completed, additional liberal arts courses may be required). This guide is based on UNC degree and Colorado general education requirements from the above catalog term.

This four-year plan is a **recommended schedule** and not reflective of every student's individual academic context. Some requirements may vary by college. Some degrees have Statewide Transfer Articulation Agreements in place; please see https://cdhe.colorado.gov/transfer-degrees for details. This guide is for planning purposes only. Students should consult with their academic advisor for course sequence guidance.

COMMUNITY COLLEGE – 30 Credits			
YEAR 1 – FALL: 16 credits		**YEAR 1 – SPRING: 14 credits**	
CHE 1111 Gen Coll Chem I w/ Lab (GT-SC1) **CHEM 111/111L Prin of Chemistry I (LAC Natural & Physical Sci.)**	5 credits	CHE 1112 Gen Coll Chem II w/ Lab (GT-SC1) **CHEM 112/112L Principles of Chemistry II**	5 credits
ENG 1021 English Composition I (GT-CO1) **ENG 122 College Composition (LAC Written Comm.-Recommended)**	3 credits	ECO 2001 Principles of Macroeconomics (GT-SS1) **ECON 203 Prin. of Macroeconomics (LAC Social & Behavioral Sciences)**	3 credits
MAT 2410 Calculus I [2] (GT-MA1) **MATH 131 Calculus I (LAC Mathematics)**	5 credits	Liberal Arts Curriculum	6 credits
Liberal Arts Curriculm[1]	3 credits		
UNIVERSITY OF NORTHERN COLORADO – 90 Credits			
YEAR 2 – FALL: 16 credits		**YEAR 2 – SPRING: 16 credits**	
CHEM 331 Organic Chemistry I	4 credits	CHEM 332 Organic Chemistry II	4 credits
CHEM 331L Organic Chemistry I Lab	1 credit	CHEM 332L Organic Chemistry II Lab	1 credit
PHYS 220 Introductory Physics I (LAC Natural & Physical Sci.)	5 credits	PHYS 221 Introductory Physics II	5 credits
SCI 291 Scientific Writing[3] (LAC Written Comm.)	3 credits	Minor Course	3 credits
Liberal Arts Curriculum	3 credits	Liberal Arts Curriculum	3 credits
YEAR 3 – FALL: 16 credits		**YEAR 3 – SPRING: 13 credits**	
CHEM 321 Chemical Analysis	4 credits	CHEM 360 or ENST 235 Chemistry and the Environment [4]	2 credits
CHEM 441 Inorganic Chemistry I	3 credits	CHEM 421 Instrumental Analysis	4 credits
Minor Course	9 credits	CHEM 450 Survey of Phys. Chemistry	3 credits
		CHEM 450L Survey of Phys. Chemistry Lab	1 credit
		Minor Course	3 credits
YEAR 4 – FALL: 15 credits		**YEAR 4 – SPRING: 14 credits**	
Electives	12 credits	Electives	14 credits
Minor Course	3 credits	Chemistry Assessment Exam[5]	0 credits

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; meet all degree requirements in the student's major field of study. Each major and/or concentration may have additional requirements necessary for graduation. Students must consult with their major advisor to receive information on any additional graduation requirements. View the UNC Undergraduate Catalog for current degree requirements.

Contact Information –

Department: Department of Chemistry & Biochemistry
Website: www.unco.edu/nhs/chemistry
Phone: 970-351-2559
Email: chemistry@unco.edu

Program Admission Requirements –

Academic Good Standing.

For information about admission to the University of Northern Colorado, please visit https://www.unco.edu/admissions/.

Minor Required –

A minor is required. Some example minors include business or economics for students interested in management,biology for students leaning toward biotechnology, or English for students considering technical writing.

Notes –

1. A total of 15 credits are required in Arts & Humanities (2 courses, minimum 3 credits each), History (1 course, minimum 3 credits), Social & Behavioral Sciences (1 course, minimum 3 credits), one additional course (minimum 3 credits) in Arts & Humanities or History or Social & Behavioral Sciences. You must also have U.S. Multicultural Studies (1 course, minimum 3 credits), International Studies (1 course, minimum 3 credits). Six total credits must be double counted.

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 (4). MATH 171 may be substituted for MATH 131. Consult your advisor.

3. With advisor approval, students can substitute ENG 123 (3) for SCI 291 Scientific Writing (3).

4. ENST 235 is offered in the Spring semester.

5. All students must take a chemistry major assessment exam prior to graduation.

This concentration offers training in chemistry, mathematics, physics and a minor area selected by the student. The course of study provides a solid foundation in chemistry and specific background knowledge about the chemical industry.

Students completing this emphasis can pursue a career in the chemical, medical, pharmaceutical or biotechnology industries; or in related government agencies. Career options include supervision, process evaluation, quality control, pilot scale operation, management and sales. Students considering graduate study in chemistry may be required to complete additional course work in chemistry and/or mathematics depending on theentrance requirements of the specific graduate school.

A. This transfer guide 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), 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 331/CHEM 331L Organic Chemistry I and Organic Chemistry I Lab and CHEM 332/CHEM 332L Organic Chemistry II and Organic Chemistry II Lab. In these cases, the two are taken concurrently.

D. Graduate level CHEM courses are recommended for juniors and seniors. Other recommended electives includeMATH 132, MATH 221, MATH 335, STAT 150, PHYS 321, and PHYS 343.

E. 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.