



Aims2UNC Curriculum Map*

**Chemistry A.S. / BS Chemistry-Pre-Health
Concentration**

2024-2025 Catalog

Degree Requirements – 120 Credits

*Curriculum Map for students transitioning from Aims Community College to the University of Northern Colorado for the purpose of completing a bachelor's degree. An AA/AS degree from Aims will result in a waiver of UNC's Liberal Arts Curriculum (general education) and the transfer of at least 60 credits depending on course grades from Aims. Courses with grades below a C- will not transfer to UNC, which could result in a transfer of fewer than 60 credits. Please note that course offerings are subject to availability and Curriculum Maps are subject to change. Please see Aims2UNC advisor for appropriate sequence of Aims courses and further information.

AIMS COMMUNITY COLLEGE – 65 Credits

| YEAR 1 – FALL: 18 credits | | YEAR 1 – SPRING: 18 credits | |
|--|-----------|---|-----------|
| ENG 1021 English Composition I (GT-CO1) ** (UNC Equivalent: ENG 122 College Composition) | 3 credits | ENG 1022 English Composition II (GT-CO2) ** (UNC Equivalent: ENG 123 College Research Paper) | 3 credits |
| MAT 2410 Calculus I ² (GT-MA1) (UNC Equivalent: MATH 131 Calculus I) | 5 credits | CHE 1112 Gen Coll Chem II w/ Lab (GT-SC1) (UNC Equivalent: CHEM 112/112L Principles of Chemistry II) | 5 credits |
| CHE 1111 Gen Coll Chem I w/ Lab (GT-SC1) (UNC Equivalent: CHEM 111/111L Prin of Chemistry I) | 5 credits | MAT 2420 Calculus II (GT-MA1) (UNC Equivalent: MATH 132 Calculus II) | 5 credits |
| PHY 2111 Physics: Calculus-Based I w/lab (GT-SC1) (UNC Equivalent: PHYS 220 Intro to Physics I) | 5 credits | PHY 2112 Physics: Calculus-Based II w/lab (GT-SC1) (UNC Equivalent: PHYS 221 Intro to Physics II) | 5 credits |
| YEAR 2 – FALL: 15 credits | | YEAR 2 – SPRING: 14 credits | |
| MAT 2430 Calculus III (GT-MA1) (UNC Equivalent: MATH 233 Calculus III) | 4 credits | CHE 2112 Organic Chemistry II w/Lab (UNC Equivalent: CHEM 332/332L Organic Chemistry II) | 5 credits |
| CHE 2111 Organic Chemistry w/Lab (UNC Equivalent: CHEM 331/331L Organic Chemistry I) | 5 credits | Social & Behavioral Sciences (GT-SS*) | 3 credits |
| Arts & Humanities (GT-AH*) | 3 credits | Social & Behavioral Sciences (GT-SS*) | 3 credits |
| History (GT-HI1) | 3 credits | Arts & Humanities (GT-AH*) | 3 credits |

UNIVERSITY OF NORTHERN COLORADO – 58 Credits

| YEAR 3 – FALL: 14 credits | | YEAR 3 – SPRING: 15 credits | |
|---|-----------|--|------------|
| CHEM 321 Chemical Analysis | 4 credits | CHEM 450 Survey of Physical Chemistry | 3 credits |
| CHEM 481 General Biochemistry I | 3 credits | CHEM 450L Survey of Physical Chemistry Lab | 1 credit |
| CHEM 481L Experimental Biochemistry I Lab | 1 credit | CHEM 482 General Biochemistry II | 3 credits |
| CHEM 441 Inorganic Chemistry I | 3 credits | CHEM 482L Experimental Biochemistry II | 1 credit |
| SCI 291 Scientific Writing ⁵ (LAC Written Comm.) | 3 credits | BIO 110 Biology: Atoms to Cells | 4 credits |
| | | Electives | 3 credits |
| YEAR 4 – FALL: 15 credits | | YEAR 4 – SPRING: 14 credits | |
| BIO 210 Cell Biology | 3 credits | Biology Elective ⁴ | 4 credits |
| Biology Elective ⁴ | 4 credits | Electives | 10 credits |
| CS or STAT Elective | 3 credits | Chemistry Assessment Exam ⁵ | 0 credits |

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|-----------|-----------|--|--|
| Electives | 5 credits | | |
|-----------|-----------|--|--|

******For a full listing of approved Guaranteed Transfer (GT) courses in these categories please refer to the [current catalog](#).

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/>.

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 (2 courses, minimum 6 credits). 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. Students are required to take a CS or STAT course (3 credits). Consult advisor for computer science (CS) or statistics (STAT) courses to fulfill mathematics elective.
4. Students are required to take 7-8 hours of biology electives. Biology Electives - Select two of the following:
BIO 341 Human Anatomy (4)
BIO 350 Human Physiology (4)
BIO 351 Microbiology (4)
5. It is highly recommended that students substitute ENG 123 for SCI 291 Scientific Writing (3).
6. All students must take a chemistry major assessment exam prior to graduation.

Pre-Medical, Pre-Dental, Pre-Optometry, Pre-Veterinary, Pre-Podiatry and Pre-Pharmacy coursework

This program offers training in chemistry, mathematics and physics with a broad base in biological sciences and biochemistry. It provides a solid foundation in chemistry and biological sciences for those students planning to pursue professional studies in dentistry, medicine, optometry, podiatry, pharmacy or veterinary medicine.

Students completing this degree emphasis should verify that the elective courses taken satisfy the requirements or recommendations of the particular professional school they wish to attend. Acceptance into these schools is competitive. All pre-health students should seek assistance from an advisor to confirm their course plans. Students considering graduate study in chemistry or biochemistry may be required to complete additional course work in chemistry and/or mathematics depending on the entrance 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) 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 481/CHEM 481L General Biochemistry I and Experimental Biochemistry I and CHEM 482/CHEM 482L General Biochemistry II and Experimental Biochemistry II. In these cases, CHEM 481/481L are taught in the Fall and CHEM 482/482L are taught in the Spring.
- D. 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.
- 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.