

# CHEMISTRY MINOR

## Introduction

Please click here (<http://catalog.ucdenver.edu/cu-denver/undergraduate/schools-colleges-departments/college-liberal-arts-sciences/chemistry/>) to see Chemistry department information.

The objective of the chemistry minor is to provide broad introductory course work and laboratory experience to science majors without the more technical mathematical and chemical prerequisites required of the chemistry major. The chemistry minor is open to all CLAS students and should prove beneficial for science majors, pre-professional health science majors and students seeking science education certification.

These program requirements are subject to periodic revision by the academic department, and the College of Liberal Arts and Sciences reserves the right to make exceptions and substitutions as judged necessary in individual cases. Therefore, the College strongly urges students to consult regularly with their major, minor and CLAS advisors to confirm the best plans of study before finalizing them.

## Program Delivery

- This is an on-campus program.

## Declaring This Minor

- Click here (<http://catalog.ucdenver.edu/cu-denver/undergraduate/schools-colleges-departments/college-liberal-arts-sciences/#policiestext>) to go to information about declaring a major/minor.
- To register your minor in chemistry, please visit the CLAS advising office in NC 1130. After establishing your minor status, you are encouraged to meet with the chemistry minor advisor, Dr. Priscilla Burrow. ([priscilla.burrow@ucdenver.edu](mailto:priscilla.burrow@ucdenver.edu))

## General Requirements

Students must satisfy all requirements as outlined below and by the department offering the minor.

- Click here (<http://catalog.ucdenver.edu/cu-denver/undergraduate/academic-policies-procedures/>) for information about Academic Policies

## Program Requirements

- Students must complete a minimum of 24 semester hours of chemistry courses.
- Students must complete a minimum of 15 upper division level (3000-level and above) CHEM credit hours.
- Students must earn a minimum grade of C- (1.7) in all courses that apply to the minor and must achieve a minimum cumulative minor GPA of 2.0. All graded attempts in required and elective courses are calculated in the minor GPA. Courses taken using P+/P/F or S/U grading cannot apply to minor requirements.
- Students must complete a minimum of nine credit hours with CU Denver faculty chosen from the approved course lists.

## Program Restrictions, Allowances and Recommendations

- All courses applied to the chemistry minor need to be taken within ten years of the graduation date with the exception of General Chemistry I Lecture CHEM 2031 General Chemistry I or CHEM 2081 Honors General Chemistry I and Laboratory CHEM 2038 General Chemistry Laboratory I or CHEM 2088 Honors General Chemistry I Laboratory and General Chemistry II Lecture CHEM 2061 General Chemistry II or CHEM 2091 Honors General Chemistry II Lecture and Laboratory CHEM 2068 General Chemistry Laboratory II or CHEM 2098 Honors General Chemistry II Laboratory. In the event that the student would like to apply for expired credit for Organic I Lecture CHEM 3481 Majors Organic Chemistry I, the student will need to test at the 50th percentile on the ACS Standardized Exam for Organic Chemistry I.
- Only one biochemistry course may count towards the Chemistry minor. Non-majors wishing to focus in biochemistry should consult the requirements for the Biochemistry Minor (<http://catalog.ucdenver.edu/cu-denver/undergraduate/schools-colleges-departments/college-liberal-arts-sciences/chemistry/biochemistry-minor/>) program.

Code	Title	Hours
<i>Complete all of the following required courses:</i>		20
CHEM 2031	General Chemistry I	
or CHEM 2081	Honors General Chemistry I	
CHEM 2038	General Chemistry Laboratory I	
or CHEM 2088	Honors General Chemistry I Laboratory	
or CHEM 2039	Majors General Chemistry I Laboratory	
CHEM 2061	General Chemistry II	
or CHEM 2091	Honors General Chemistry II Lecture	
CHEM 2068	General Chemistry Laboratory II	
or CHEM 2098	Honors General Chemistry II Laboratory	
CHEM 3011	Inorganic Chemistry	
or CHEM 3111	Analytical Chemistry	
CHEM 3411	Organic Chemistry I	
or CHEM 3481	Majors Organic Chemistry I	
CHEM 3421	Organic Chemistry II	
or CHEM 3481	Majors Organic Chemistry II	
<i>Complete one of the following upper division laboratory courses:</i>		1
CHEM 3018	Inorganic Chemistry Laboratory	
CHEM 3118	Analytical Chemistry Laboratory	
CHEM 3418	Organic Chemistry Lab I	
or CHEM 3481	Majors Organic Chemistry Laboratory I	
CHEM 4828	Biochemistry Lab	
<i>Complete three credit hours from the following upper division elective courses:</i>		3
CHEM 3810	Biochemistry	
CHEM 4010	Advanced Inorganic Chemistry	
CHEM 4110	Advanced Analytical Chemistry	
CHEM 4121	Instrumental Analysis	
CHEM 4221	Practical Applications of Spectroscopy	
CHEM 4421	Cannabis Chemistry	
CHEM 4510	Computational Chemistry	

CHEM 4511	Physical Chemistry: Thermodynamics and Kinetics
CHEM 4521	Physical Chemistry: Quantum and Spectroscopy
CHEM 4530	Advanced Physical Chemistry
CHEM 4630 & CHEM 4580	Programming for Data Analysis in the Physical Sciences and Molecular Informatics
CHEM 4640	Artificial Intelligence in Chemistry and Biochemistry
CHEM 4700	Environmental Chemistry
CHEM 4810	General Biochemistry I
CHEM 4815	Structural Biology of Neurodegenerative Diseases
CHEM 4825	Biochemistry of Metabolic Disease
CHEM 4835	Biochemistry of Gene Regulation and Cancer
CHEM 4840	Independent Study: Chem <sup>1</sup>
CHEM 4860	Bioinorganic Chemistry: Bioinorganic compounds in medicine
CHEM 4880	Directed Research <sup>1</sup>
CHEM 5010	Advanced Inorganic Chemistry
CHEM 5110	Advanced Analytical Chemistry
CHEM 5221	Practical Applications of Spectroscopy
CHEM 5310	Advanced Organic Chemistry
CHEM 5810	Graduate Biochemistry I
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<b>Total Hours</b>	<b>24</b>

<sup>1</sup> With prior permission from the Chemistry Minor Advisor.

To learn more about the Student Learning Outcomes for this program, please visit our website (<https://clas.ucdenver.edu/chemistry/students/undergraduate-programs/>).