

Chemistry (Teaching Certification Emphasis)

Contact for Chemistry Department: 719-549-2574
<http://csm.csupueblo.edu/Chemistry/Pages/Default.aspx>

I. General Education Courses

*Students who do not place into college level English Composition or Math will have to take pre-requisite Developmental Education courses.

	Credit Hours	Community College Course Number and Title or gtPathways Category	CSU-Pueblo Course & Credits
Written Communication	6	ENG 121: English Composition I (3 credits) (GT-CO1) ENG 122: English Composition II (3 credits) (GT- CO2)	ENG 101, 3 credits ENG 102, 3 credits
Oral Communication	3	COM 115: Public Speaking (3 credits) A grade of B or better is required for admission to the Teacher Education program; however, a grade of C- or better guarantees the Oral Communication requirement has been met for the AS degree	COMR 103, 3 credits
Mathematics	5	MAT 201, Calculus I (5 credits)	MATH 126, 3 credits
Arts & Humanities	6	Two gtPathways Arts & Humanities course from two different areas (<u>GT-AH1</u> , <u>GT-AH2</u> , <u>GT-AH3</u> , or <u>GT-AH4</u>)	6 credits
Social & Behavioral Sciences	6	PSY 235, Human Growth and Development, (3 credits) OR PSY 238, Child Development, (3 credits) AND One additional gtPathways Social & Behavioral Science course from two different areas (<u>GT-SS1</u> or <u>GT-SS2</u>)	PSYCH 151, 3 credits OR PSYCH 251, 3 credits 3 credits
History	3	One gtPathways History course (<u>GT-HI1</u>)	3 credits
Natural & Physical Sciences	10	CHE 111, General College Chemistry I With Lab, (5 Credits) CHE 112, General College Chemistry II With Lab, (5 Credits)	CHEM 121/L, 5 credits CHEM 122/L, 5 credits
	39	TOTAL GEN ED CREDITS	39

II. Required Courses

Credit Hours	Community College Course Number and Title	CSU-Pueblo Course & Credits
5	PHY 211, Physics: Calculus-Based I With Lab	PHYS 221/L, 5 credits
5	PHY 212, Physics: Calculus-Based II With Lab	PHYS 222/L, 5 credits
4	BIOL 105, Science of Biology With Lab	BIO 100/L, 4 credits
4	GEY 111, Physical Geology With Lab	GEOL 101/L, 4 credits
3	EDU 221, Introduction to Education	ED 202, 3 credit
21	TOTAL REQUIRED COURSES CREDITS	21

III. Elective and Recommended Courses

“Recommended Courses” means courses that students are strongly encouraged, but not required, to take for preparation in this major and are listed below in priority order.

Credit Hours	Community College Course Number and Title
0	Student chooses, with help from an advisor, from the approved electives list for the community college’s AS degree.
60	TOTAL ASSOCIATE DEGREE CREDITS

ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS (60 Credits):

Students should note that all required courses must be satisfactorily completed as part of the AS degree at the community college and will also transfer and apply to the bachelor’s degree requirements at the receiving 4-year institution. However, if you’re going to transfer before completing the AS degree, you may not need some of these courses. In that case, check with the receiving institution and an advisor for your options.

GUARANTEES & LIMITATIONS

- 1. Completion of Associate’s Degree:** This transfer guide identifies the courses a student needs to complete (with a C- or higher) to earn an AS degree at a Colorado community/junior college in order to be able to finish the designated baccalaureate degree in no more than 60 credits. Per [Colorado Commission on Higher Education \(CCHE\) Policy I, L](#), students who complete an AS degree at a Colorado community/junior college and who are admitted to a Colorado public baccalaureate institution are guaranteed the following: the full transfer and application of a minimum of 60 credits toward the baccalaureate degree requirements at the Colorado institution of higher education; completion of the lower-division component of the receiving institution’s general education core curriculum; and junior standing. Course credit may be applied to major, elective or other requirements at the receiving institution’s discretion. If more than 60 college-level credits are taken or the student gets lower than a C- in one or more courses at the community/junior college, then some loss of transfer credit may occur, and students may not be able to complete this baccalaureate degree in 120 credits.
- 2. Transfer Before Completing the Associate’s Degree:** If the student intends to transfer prior to completing an AS degree, this transfer guide should still be used to identify the courses that can most effectively prepare them for efficiently completing the designated major at the baccalaureate institution to which they are transferring. While not completing the required associate’s degree eliminates the guarantees described here, gtPathways general education courses identified in Section I are guaranteed to transfer and apply to the receiving institution’s gtPathways lower division general education requirements. Students are strongly encouraged to finish course sequences (such as English Comp I & II or Calculus I, II & III) before transferring.

For additional information on CCHE transfer policies and gtPathways guaranteed transfer of general education credit, visit <http://highered.colorado.gov/Academics/Transfers/Students.html>. To file a transfer-related complaint with the Colorado Department of Higher Education, visit <http://highered.colorado.gov/Academics/Complaints/default.html>

The chart shown below illustrates the remaining requirements to complete the BS in Chemistry (Teaching Certification Emphasis) after transferring to CSU-Pueblo. 60 semester credits are the maximum amount

of transfer credit allowed from two-year institutions. Therefore the credits shown below **MUST** be completed at CSU-Pueblo.

Required Chemistry Courses		
CHEM 211/L OR CHEM 301/L	Introduction to Organic Chemistry and Lab OR Organic Chemistry I and Lab	4 credits OR 5 credits
CHEM 221/L OR CHEM 419/L	Inorganic Chemistry and Lab OR Instrumental Analysis and Lab	4 credits OR 5 credits
CHEM 311	Survey of Biochemistry	3 credits
CHEM 317/L	Quantitative Analysis and Lab	5 credits
CHEM 321	Physical Chemistry I	3 credits
CHEM 493	Seminar	1 credit
Related Course Requirements		
BIOL 121/L	Environmental Conservation and Lab	4 credits
MATH 224	Calculus and Analytic Geometry I	5 credits
Required Teacher Education Courses		
ED 280	Education Media and Technology	3 credits
ED 301	Frameworks of Teaching	4 credits
ED 412	Teaching Diverse Learners	3 credits
ED 444	Teaching Secondary Science	4 credits
ED 485	Capstone Seminar in Education	1 credit
ED 488 OR ED 489	Secondary Student Teaching OR Student Teaching K-12	12, credits
RDG 435	Content Area Literacy	4
Total AS Degree Transfer Credit Applied Toward B.S. Degree		60
Total Additional Credit Required for B.S. Degree		60-62
Total B.S. Degree Requirements		120-122