## 2 + 2 Joint Articulation Transfer Agreement

## **Bachelor of Science in Chemistry (ACS Certified Emphasis)**

## Colorado State University – Pueblo And Community College Of Denver

B.S. Requirements at CSU-Pueblo Lower Division General Education Requirements		A.S. Requirements at CCD Equivalent Courses at CCD		
Composition I	3	ENG 121	English Composition I	3
Composition II	3	ENG 122	English Composition II	3
•		*COM 115	*Public Speaking	2 + *(1)
			*1 credit carried over to the Free	` '
			<b>Elective Section</b>	
Select from statewide Gen Ed Core	9	Humanities	Select from statewide Gen Ed Core	9
Select from statewide Gen Ed Core	6	Social Science	Select from statewide Gen Ed Core	6
Select from Statewide Gen Ed Core	3	History	Select from Statewide Gen Ed Core	3
Calculus & Analytic Geometry I	5	MAT 201	Calculus I	5
		Physical and		
		Life Sciences		
General Chemistry I	5	CHE 111	General College Chemistry I	5
and		and	and	
General Chemistry II	5	CHE 112	General College Chemistry II	5
Subtotal		Subtotal		41
Required Chemistry Core Courses		<b>Equivalent Courses at CCD</b>		•
General Chemistry I/Lab	(5)	CHE 111	General College Chemistry I (	(5)
General Chemistry II/Lab	(5)	CHE 112	General College Chemistry II	(5)
Inorganic Chemistry/Lab	3			
	5			
	5			
	5			
	5			
Seminar	1			
CHEM 493 Seminar 1 Subtotal 30		Subtotal		0
ACS Emphasis				
	2			
Electives Approved Chemistry Electives <b>Subtotal</b>		Subtotal	L	
Other Required Courses				
	(5)			(5)
Calculus & Analytic Geometry II	5	MAT 202	Calculus II	5
	Course Title Composition I Composition II Composition II  Select from statewide Gen Ed Core Select from Statewide Gen Ed Core Select from Statewide Gen Ed Core Calculus & Analytic Geometry I  General Chemistry I and General Chemistry II  emistry Core Courses  General Chemistry I/Lab General Chemistry II/Lab Inorganic Chemistry I/Lab Organic Chemistry I/Lab Organic Chemistry II/Lab Quantitative Analysis/Lab Physical Chemistry I Physical Chemistry II Instrumental Analysis/Lab Seminar  sis  Experimental Physical Chemistry Biochemistry I Advanced Inorganic Chemistry Research Approved Chemistry Electives  red Courses Calculus & Analytic Geometry I	Course Title Credits Composition I 3 Composition II 3 Composition II 3  Select from statewide Gen Ed Core 9 Select from statewide Gen Ed Core 6 Select from Statewide Gen Ed Core 7 Select from Statewide Gen Ed Core 8 Calculus & Analytic Geometry I 5  General Chemistry I 5  General Chemistry II 5  General Chemistry II 5  General Chemistry II 5  General Chemistry II/Lab (5) General Chemistry II/Lab (5) Inorganic Chemistry II/Lab (5) Inorganic Chemistry II/Lab 5 Organic Chemistry II/Lab 5 Organic Chemistry II/Lab 5 Quantitative Analysis/Lab 5 Physical Chemistry II 3 Physical Chemistry II 3 Instrumental Analysis/Lab 5 Seminar 1  Sis  Experimental Physical Chemistry 3 Research 1 Approved Chemistry Electives 6  15  red Courses Calculus & Analytic Geometry I (5)	Course Title Credits Course # Composition I 3 ENG 121 Composition II 3 ENG 122  Composition II 3 ENG 122  *COM 115  Select from statewide Gen Ed Core 9 Humanities Select from statewide Gen Ed Core 6 Social Science Select from Statewide Gen Ed Core 3 History Calculus & Analytic Geometry I 5 MAT 201  Physical and Life Sciences  General Chemistry I 5 CHE 111 and CHE 112  **General Chemistry II 5 CHE 111  **General Chemistry II 5 CHE 112  **General Chemistry II 5 CHE 111  **General Chemistry II 6 CHE 112  **General Chemistry II 6 CHE 111  **General Chemistry II 6 CHE 112  **Gondal Chemistry II 6 CHE 112  **Gondal Chemistry II 6 CHE 112  **Gondal Chemistry II 7 CHE 112  **Gondal CHE 112  **Gondal CHE 111  **Gondal CHE 111  **Gondal CHE 111  **General Chemistry II 6 CHE 112  **Gondal CHE 111  **Gondal	Course Title   Credits   Course #   Course Title   Composition I   3   ENG 121   English Composition I   3   ENG 122   English Composition I   Public Speaking *1 credit carried over to the Free Elective Section   Free Elective Section   Select from statewide Gen Ed Core   Social Science   Select from Statewide Gen Ed Core   Select from Statewide Gen Ed Core   Select from Statewide Gen Ed Core   Sel

PHYS 221/L	General Physics I/Lab	5	PHY 211	Physics: Calculus-based I	5
PHYS 222/L	General Physics II/Lab	5	PHY 212	Physics: Calculus-based II	5
Subtotal		15	Subtotal	Subtotal	
Approved M	linor				
Minor	Choose advisor approved minor	20	Elective	TBA, CCD students are recommended to consult with the CSU-Pueblo Chemistry Dept. for Approved Minor courses	3
Subtotal		20			3
Additional I	Degree Requirements				
Free Elective	May be any academic discipline	1	*COM 115	*Public Speaking *1 credit may be used for Free Elective	1
Subtotal 1 Subtotal				1	
Total Credits for A.S.					60
Total Transfer Credit Accepted for A.S.					
Total Additional Credit Required for B.S.					62
Total B.S. Degree Requirements					

Students who successfully complete this program as specified are eligible to apply for a *Destination CSU-Pueblo* scholarship.

This articulation transfer agreement replaces all previous agreements between CCD and CSU-Pueblo in Bachelor of Science in Chemistry (ASC Certified Emphasis). This agreement will be reviewed annually and revised (if necessary) as mutually agreed.

cam: 12/03/09 revised: 05/28/10