

## 2 + 2 Joint Articulation Transfer Agreement

### Bachelor Science in Biology/Chemistry (Double Major)

#### Colorado State University – Pueblo And Arapahoe Community College

<b>B.S. Requirements at CSU-Pueblo</b>			<b>A.S. Requirements at ACC</b>		
<b>Lower Division General Education Requirements</b>			<b>Equivalent Courses at ACC</b>		
Course #	Course Title	Credits	Course #	Course Title	Credits
ENG 101	Composition I	3	ENG 121	English Composition I	3
ENG 102	Composition II	3	ENG 122	English Composition II	3
SPCOM 103	Speaking and Listening	3	COM 115	Public Speaking	3
Humanities	Select from statewide Gen Ed Core	6	Humanities	Select from statewide Gen Ed Core	9
Social Science	Select from statewide Gen Ed Core	6	Social Science	Select from statewide Gen Ed Core	6
History	Select from Statewide Gen Ed Core	3	History	Select from Statewide Gen Ed Core	3
MATH 126	Calculus & Analytic Geometry I	5	MAT 201	Calculus I	5
Physical and Life Sciences			Physical and Life Sciences		
BIOL 181/L and BIOL 182/L	College Biology I/Organismal Biol/Lab and College Biology II/Cellular Biol/Lab	4	BIO 112 and BIO 111	General College Biology II and General College Biology I	5
		4			5
<b>Subtotal</b>		<b>37</b>	<b>Subtotal</b>		<b>42</b>
<b>Required Biology Core Courses</b>			<b>Equivalent Courses at ACC</b>		
BIOL 171	Career Planning I	1			
BIOL 181/L	College Biology I/Organismal Biol/Lab	(4)	BIO 112	General College Biology II	(5)
BIOL 182/L	College Biology II/Cellular/Lab	(4)	BIO 111	General College Biology I	(5)
BIOL 201/L or BIOL 202/L	Botany/Lab or Zoology/Lab	4			
BIOL 301/L	General Microbiology/Lab	5			
BIOL 350	Mendelian & Population Genetics	2			
BIOL 351	Molecular Biology & Genetics	2			
BIOL 352	Evolutionary Biology & Ecology	3			
BIOL 412/L or BIOL 413/L or BIOL 414/L	Cellular Biology/Lab or Plant Physiology/Lab or Vertebrate Physiology/Lab	4			
		4			
		4			
BIOL 493	Seminar	1			
Biology Electives	Advisor Approved Biology Electives	10			
<b>Subtotal</b>		<b>32</b>	<b>Subtotal</b>		<b>0</b>
<b>Required Chemistry Core Courses</b>			<b>Equivalent Courses at ACC</b>		
CHEM 121/L	General Chemistry I/Lab	5	CHE 111	General College Chemistry I	5
CHEM 122/L	General Chemistry II/Lab	5	CHE 112	General College Chemistry II	5
CHEM 221/L	Inorganic Chemistry/Lab	3			
CHEM 301/L	Organic Chemistry I/Lab	5			
CHEM 302/L	Organic Chemistry II/Lab	5			
CHEM 317/I	Quantitative Analysis/Lab	5			

CHEM 321	Physical Chemistry I	3			
CHEM 322	Physical Chemistry II	3			
CHEM 419/L	Instrumental Analysis/Lab	5			
<b>Subtotal</b>		<b>39</b>	<b>Subtotal</b>		<b>10</b>
<b>Required Support Courses</b>					
MATH 126	Calculus & Analytic Geometry I	(5)	MAT 201	Calculus I	(5)
MATH 224	Calculus & Analytic Geometry II	5	MAT 202	Calculus II	5
PHYS 201/L and PHYS 202/L	Principles of Physics I/Lab and Principles of Physics II/Lab	4 4	PHY 111 And PHY 112	Physics: Algebra-Based I And Physics: Algebra-Based II	5 5
or PHYS 221/L and PHYS 222/L	General Physics I/Lab and General Physics II/Lab	5 5	PHY 211 and PHY 212	Physics: Calculus-Based I and Physics: Calculus-Based II	5 5
<b>Subtotal</b>		<b>13-15</b>	<b>Subtotal</b>		<b>10</b>
<b>Total Credits for A.S.</b>					<b>62</b>
<b>Total Transfer Credit Accepted for A.S.</b>					<b>60</b>
<b>Total Additional Credit Required for B.S.</b>					<b>64</b>
<b>Total B.S. Degree Requirements</b>					<b>124</b>

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 ACC and CSU-Pueblo in Bachelor of Science in Biology/Chemistry (Double Major). This agreement will be reviewed annually and revised (if necessary) as mutually agreed.

cam: 12/03/09  
revised: 06/10/10  
revised: 08/14/10