

## 2 + 2 Joint Articulation Transfer Agreement

### Bachelor of Science in Mathematics/Physics (Double Major)

#### Colorado State University – Pueblo And Northeastern Junior College

<b>B.S. Requirements at CSU-Pueblo</b>			<b>A.S. Requirements at NJC</b>		
<b>Lower Division General Education Requirements</b>			<b>Equivalent Courses at NJC</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
			*COM 115	*Public Speaking * See Open Electives Section	(3)
Humanities	Select from statewide Gen Ed Core	9	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 and Analytic Geometry I	5	MAT 201	Calculus I	5
Physical and Life Sciences			Physical and Life Sciences		
CHE 121/L	General Chemistry I/Lab	5	CHE 111	General College Chemistry I	5
and	and		and	and	
CHE 122/L	General Chemistry II/Lab	5	CHE 112	General College Chemistry II	5
<b>Subtotal</b>		<b>39</b>	<b>Subtotal</b>		<b>39</b>
<b>Required Mathematics Courses</b>			<b>Equivalent Courses at NJC</b>		
MATH 126	Calculus & Analytic Geometry I	(5)	MAT 201	Calculus I	(5)
MATH 207	Matrix & Vector Algebra w/App	2			
MATH 224	Calculus & Analytic Geometry II	5	MAT 202	Calculus II	5
MATH 307	Intro to Linear Algebra	4			
MATH 325	Intermediate Calculus	3	*MAT 203	*Calculus III *Course is academically equivalent, but cannot be counted for Upper Division credit	4
MATH 327	Abstract Algebra	4			
MATH 337	Differential Equations I	3			
MATH 338	Differential Equations II	3			
MATH 350	Probability	3			
and	and				
MATH 356	Stats for Engineers & Scientists	3			
or	or				
MATH 550	Statistical Methods				
MATH 421	Advanced Calculus I	4			
<b>Subtotal</b>		<b>34</b>	<b>Subtotal</b>		<b>9</b>
<b>Required Physics Courses</b>			<b>Equivalent Courses at NJC</b>		
PHYS 221/L	General Physics I/Lab	5	PHY 111	Physics: Calculus-Based I	5
PHYS 222/L	General Physics II/L	5	PHY 112	Physics: Calculus-Based II	5
PHYS 301	Theoretical Mechanics	4			
PHYS 323/L	General Physics III/L	5			
PHYS 321/322	Thermodynamics/Lab	4			

PHYS 431/432	Electricity & Magnetism/Lab	5			
PHYS 441	Quantum Mechanics	4			
PHYS 480	Practicum in Lab Instruction	1			
PHYS 493	Seminar	1			
<b>Subtotal</b>		<b>34</b>	<b>Subtotal</b>		<b>10</b>
<b>Additional Related Courses</b>					
MATH 425 or PHYS 341/342	Complex Variables or Optics/Adv. Laboratory-Optics	3 4			
PHYS 492 or MATH 492	Research or Research	1			
Computer Programming	Advisor Approved CIS course	3			
Open Electives	May be any discipline	5	COM 115	Public Speaking	3
<b>Subtotal</b>		<b>10-11</b>	<b>Subtotal</b>		<b>3</b>
<b>Total Credits for A.S.</b>					<b>61</b>
<b>Total Transfer Credit Accepted for A.S.</b>					<b>60</b>
<b>Total Additional Credit Required for B.S.</b>					<b>60</b>
<b>Total B.S. Degree Requirements</b>					<b>120</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 NJC and CSU-Pueblo in Bachelor of Science in Math/Physics Double Major. This agreement will be reviewed annually and revised (if necessary) as mutually agreed.

cam: 11/20/09  
revised: 06/19/10