

## 2 + 2 Joint Articulation Transfer Agreement

### Bachelor of Science in Physical Science (Secondary Education Emphasis)

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

<b>B.S. Requirements at CSU-Pueblo</b>			<b>A.S. Requirements at MCC</b>		
<b>Lower Division General Education Requirements</b>			<b>Equivalent Courses at MCC</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 115	*Speaking and Listening  <b>A grade of B or better is required for Admission to the Teacher Education Program</b>	3	COM 115	*Public Speaking  <b>A grade of B or better is required for Admission to the Teacher Education Program</b>	3
Humanities	Select from statewide Gen Ed Core	6	Humanities	Select from statewide Gen Ed Core	9
Social Science PSYCH 151 or PSYCH 251	Select from statewide Gen Ed Core Intro to Human Development or Childhood and Adolescence	3 3	Social Science PSY 235 or PSY 238	Select from statewide Gen Ed Core Human Growth & Development or Child Development	3 3
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		
CHEM 121/L and CHEM 122/L	General Chemistry I and General Chemistry II	5 5	CHE 111 and CHE 112	General College Chemistry I and General College Chemistry II	5 5
<b>Subtotal</b>		<b>39</b>	<b>Subtotal</b>		<b>42</b>
<b>Required Physics Core Courses</b>			<b>Equivalent Courses at MCC</b>		
PHYS 110	Astronomy	3	AST 101	Astronomy I	4
PHYS 140/L	Light, Energy, and the Atom/Lab	4	PHY 105	Conceptual Physics	4
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	5
PHYS 323/L	General Physics III/Lab	5			
<b>Subtotal</b>		<b>22</b>	<b>Subtotal</b>		<b>10</b>
<b>Related Course Requirements</b>			<b>Equivalent Courses at FRCC</b>		
BIOL 100/L	Principles of Biology	4	BIO 105	Science of Biology	4
BIOL 121/L	Environmental Conservation	4			
GEOL 101/L	Earth Science/Lab	4	GEY 111	Physical Geology	4
CHEM 121/L	General Chemistry I/Lab (see Gen Ed Core)	(5)	CHE 111	General College Chemistry I	(5)
CHEM 122/L	General Chemistry II/Lab (See Gen Ed Core)	(5)	CHE 112	General College Chemistry II	(5)
CHEM 211/L or CHEM 301/L	Intro to Organic Chemistry/Lab or Organic Chemistry I/Lab	4			
CHEM 317/L	Quantitative Analysis/Lab	5			

CHEM 321	Physical Chemistry I	3			
CHEM 378	Practicum in Lab Instruction	1			
MATH 126	Calculus & Analytic Geometry I	(5)	MAT 201	Calculus I	(5)
MATH 224	Calculus & Analytic Geometry II	5	MAT 202	Calculus II	5
<b>Subtotal</b>		<b>30</b>	<b>Subtotal</b>		<b>5</b>
<b>Secondary Science Teaching Requirements</b>			<b>Equivalent Courses at MCC</b>		
ED 202	Foundations of Education	3	EDU 221	Introduction to Education	3
ED 280	Educational Media & Technology	3	EDU 261	Teaching, Learning, & Technology	3
ED 301	Frameworks of Teaching	3			
ED 412	Teaching Diverse Learners	3			
ED 444	Teaching Secondary Science	4			
ED 485	Capstone Seminar in Education	2			
ED 488	Secondary Student Teaching	12			
RDG 435	Content Area Literacy	4			
<b>Subtotal</b>		<b>34</b>	<b>Subtotal</b>		<b>3</b>
<b>Total Credits for A.S.</b>					<b>60</b>
<b>Total Transfer Credit Accepted for A.S.</b>					<b>60</b>
<b>Total Additional Credit Required for B.S.</b>					<b>68</b>
<b>Total B.S. Degree Requirements</b>					<b>128</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 MCC and CSU-Pueblo in Bachelor of Science in Physics (Secondary Education Emphasis). This agreement will be reviewed annually and revised (if necessary) as mutually agreed.

cam: 11/13/09  
revised: 06/18/10