## 2 + 2 Joint Articulation Transfer Agreement

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

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

<b>B.S. Require</b>	ements at CSU-Pueblo	A.S. Requirements at CCD Equivalent Courses at CCD			
Lower Divisi	ion General Education Require				
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	3	COM 115	*Public Speaking	3
	A grade of B or better is required for			A grade of B or better is required for	
	Admission to the Teacher Education			Admission to the Teacher Education	
	Program			Program	
Humanities	Select from statewide Gen Ed Core	6	Humanities	Select from statewide Gen Ed Core	9
Social Science	Select from statewide Gen Ed Core	3	Social Science	Select from statewide Gen Ed Core	3
PSYCH 151	Intro to Human Development	3	PSY 235	Human Growth & Development	3
or	or		or	or	
PSYCH 251	Childhood and Adolescence		PSY 238	Child Development	
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			Physical and		
Life Sciences			Life Sciences		
CHEM 121/L	CHEM 121/L General Chemistry I	5	CHE 111	General College Chemistry I	5
and	and		and	and	
CHEM 121/L	CHEM 122/L General Chemistry II	5	CHE 112	General College Chemistry II	5
Subtotal 39			Subtotal		42
Required Physics Core Courses			Equivalent Courses at CCD		
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 II	5
PHYS 323/L	General Physics III/Lab	5			
Subtotal 22		22	Subtotal		10
Related Course Requirements			Equivalent Courses at CCD		
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	(5)	CHE 111	General College Chemistry I	(5)
CHEM 122/L	General Chemistry II/Lab	(5)	CHE 112	General College Chemistry II	(5)
CHEM 211/L	Intro to Organic Chemistry/Lab	4			
or	or				
CHEM 301/L	Organic Chemistry I/Lab				
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
Subtotal		30	Subtotal		5
Secondary Science Teaching Requirements			Equivalent Courses at CCD		
ED 202	Foundations of Education	3	EDU 221	Introduction to Education	3
ED 280	Educational Media & 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			
Subtotal		34	Subtotal		3
Total Credits for A.S.					
Total Transfer Credit Accepted for A.S.					
Total Additional Credit Required for B.S.					
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 Physics (Secondary Education Emphasis). This agreement will be reviewed annually and revised (if necessary) as mutually agreed.

cam: 12/14/09 revised: 06/02/10