

2 + 2 Joint Articulation Transfer Agreement

Bachelor of Science in Physics (Engineering Emphasis)

Colorado State University – Pueblo And Northeastern Junior College

B.S. Requirements at CSU-Pueblo			A.S. Requirements at NJC		
Lower Division General Education Requirements			Equivalent Courses at NJC		
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 Elective 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 & 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	CHE 111 and CHE 112	General College Chemistry I and General College Chemistry II	5
		5			5
Subtotal		39	Subtotal		39
Required Physics Courses (Engineering Emphasis)			Equivalent Courses at NJC		
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 301	Theoretical Mechanics	4			
PHYS 321	Thermodynamics	3			
PHYS 322	Advanced Laboratory – Heat	1			
PHYS 323/L	General Physics III/Lab	5			
PHYS 341	Optics	3			
PHYS 342	Advanced Laboratory – Optics	1			
PHYS 431	Electricity & Magnetism	4			
PHYS 492	Research	1			
Subtotal		32	Subtotal		10
Other Required Courses			Equivalent Courses at NJC		
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)
EN 101	Introduction to Engineering	2			
EN 103	Problem Solving for Engineers	3			
EN 107	Engineering Graphics	2			
EN 211	Engineering Mechanics I	3	EGG 271	Theoretical Mechanics – Statics	3
EN 212	Engineering Mechanics II	3	EGG 272	Theoretical Mechanics – Dynamics	3
EN 231/L	Circuit Analysis I/Lab	5			
EN 321	Thermodynamics I	3			
EN 324/L	Material Science & Engineering/Lab	4			
EN 441	Engineering Manufacturing Processes	4			

EN 443	Quality Control & Reliability	3			
EN 471	Operations Research	3			
MATH 126	Calculus & Analytic Geometry I	(5)	MAT 201	Calculus I (see Gen Ed Core)	(5)
MATH 207	Matrix & Vector Algebra w/App	2			
MATH 224	Calculus & Analytic Geometry II	5	MAT 202	Calculus II	5
MATH 325	Intermediate Calculus	3			
MATH 337	Differential Equations I	3			
Open Elective	May be any Academic Discipline	1	*COM 115	*Public Speaking *1 credit allowed in this section	3
Subtotal		49	Subtotal		11
Total Credits for A.S.					60
Total Transfer Credit Accepted for A.S.					60
Total Additional Credit Required for B.S.					60
Total B.S. Degree Requirements					120

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 Physics (engineering Emphasis). This agreement will be reviewed annually and revised (if necessary) as mutually agreed.

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