

2 + 2 Joint Articulation Transfer Agreement

Bachelor of Science in Biology (Bioinformatics 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
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 4	BIO 112 and BIO 111	General College Biology II and General College Biology I	5 5
Subtotal		37-39	Subtotal		42
Required Biology Core Courses			Equivalent Courses at NJC		
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 Biol/Lab	(4)	BIO 111	General College Biology I	(5)
BIOL 201/L or BIOL 202/L	Botany/Lab or Zoology/I	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	Cellular Biology/Lab	4			
BIOL 493	Seminar	1			
Subtotal		22	Subtotal		0
Bioinformatics Emphasis Course Requirements			Equivalent Courses at NJC		
BIOL 351/L	Adv Genetics & Molecular Bio Lab	2			
CHEM 411	Biochemistry I	3			
BIOL 450/L	Sur Genomics & Bioinformatics/Lab	3			
Electives	Advisor Approved Upper Division Biology Elective	5			
Subtotal		13	Subtotal		
Additional Major Requirements			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
CHEM 301/L	Organic Chemistry I/Lab	5			
CHEM 302/L	Organic Chemistry II/Lab	5			

CHEM 412/L	Biochemistry II/Lab	5			
CIS 171	Intro to Java Programming	4			
MATH 126	Calculus and Analytic Geometry I	(5)	MAT 201	Calculus I	(5)
MATH 224	Calculus and Analytic Geometry II	5	MAT 202	Calculus II	5
MATH 256	Probability for Engineers & Science	3			
MATH 356	Statistics for Engineers & Scientists	3			
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
Subtotal		48-50	Subtotal		20
Total Credits for A.S.					62
Total Transfer Credit Accepted for A.S.					60
Total Additional Credit Required for B.S.					63
Total B.S. Degree Requirements					123

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

cam: 11/11/09
revised: 06/13/10
revised: 08/14/10