SUNY Fredonia – Jamestown Community College

Articulation Agreement in Molecular Genetics

By this agreement, students who complete an Associate in Science (AS) degree at Jamestown Community College (JCC) are guaranteed admission with full junior standing to the Bachelor of Science (BS) Molecular Genetics degree program at Fredonia. By completing the AS degree, a minimum of 54 credit hours of coursework listed in Tables 1-2, and at least seven of the ten SUNY General Education (GER) requirements at JCC, such students should be able to complete the BS Molecular Genetics degree at Fredonia within four additional full-time semesters, taking 15-18 credits per semester. Fredonia will accept up to 75 JCC credits listed in Tables 1-2 and courses transferred as additional electives toward fulfillment of the requirements for the BS Molecular Genetics degree.

GPA Criterion: To be guaranteed admission, students must have a minimum cumulative GPA, from all colleges attended, of 2.5.

College Core Curriculum: To graduate with a baccalaureate degree from Fredonia, students must meet the requirements of Fredonia's College Core Curriculum (CCC). The CCC includes all ten SUNY General Education Requirements plus additional coursework stipulated in the Fredonia catalog. To assist JCC students in preparing for their baccalaureate degree at Fredonia, the additional CCC requirements are summarized below:

1) Students are required to complete two courses, with two different prefixes, in the social sciences.
2) Students are required to complete two courses, with two different prefixes, in the natural sciences.
3) The CCC includes an oral communication requirement. This is covered by meeting the SUNY General Education basic communication requirement, which is fulfilled by ENG 1530 at JCC.

Table 1. BS Molecular Genetics Requirements

Jamestown Community College		Fredonia	
		Required Courses	
BIO 1580 Principles of Biology I or BIO 2670 Botany	(4 credit hours)	BIOL 131/132Introductory Ecology and Evolution	(4 credit hours)
BIO 1570 Principles of Biology I or BIO 1575 Biology: A Molecular Approach	(4)	BIOL 133/134 Introductory Cell and Molecular Biology	(4)
BIO 2560 Genetics	(4)	BIOL 237/238 Genetics	(4)
BIO 2660 Zoology	(4)	BIOL 243/244 Organismal Biology	(4)
		BIOL 333/334 Biochemistry	(4)
BIO 2531/2532 Microbiology and Lab	(4)	BIOL 338 Microbiology	(3)
		BIOL 380/381 Cell and Molecular Biology	(4)
		BIOL 435 Developmental Biology	(3)
		BIOL 437 Molecular Genetics Laboratory	(2)
		BIOL 491 Senior Capstone Research OR BIOL 492 Senior Capstone Internship OR BIOL 493 Senior Capstone Course	(0-6)
Courses equivalent to Fredonia 300-400 level Biology electives BIO 2840 Immunology BIO 2550 Conservation Biology BIO 2640 Animal Behavior	(9)	300-400 level Biology electives Students must take 6 of their 9 upper level biology electives at Fredonia. BIOL 3TR 300 Level Elective BIOL 421 Biological Conservation BIOL 446 Animal Behavior	(9)
CHE 1550 College Chemistry I	(4)	CHEM 115/125 General Chemistry I	(4)
CHE 1560 College Chemistry II	(4)	CHEM 116/126 General Chemistry I	(4)
CHE 2530 Organic Chemistry I	(4)	CHEM 215/225 Organic Chemistry II	(4)
CHE 2540 Organic Chemistry II	(4)	CHEM 216/226 Organic Chemistry II	(4)
PHY 1610 General Physics I and PHY 1620 General Physics II or PHY 1710 Analytical Physics I and PHY 2710 Analytical Physics II	(8)	PHYS 121/123 College Physics I and PHYS 122/124 College Physics II or PHYS 230/232 University Physics I and PHYS 231/233 University Physics II	(8)
MAT 1630 Calculus for Business and Social Science I or MAT 1710 Calculus and Analytic Geometry I	(3-4)	MATH 120 Survey of Calculus I or MATH 122 University Calculus I	(3-4)
MAT 1640 Calculus for Business and Social Science II or MAT 1720 Calculus and Analytic Geometry II	(3-4)	MATH 121 Survey of Calculus II Or MATH 123 University Calculus II	(3-4)

Chemistry and mathematics courses should be completed by the end of the sophomore year, physics courses by the end of the junior year. If time permits, students can take physics at JCC.

Table 2. CCC Requirements

Jamestown Community College		Fredonia	
SUNY GER Math (Fredonia BS Molecular Genetics degree requirements will fulfill this requirement)		SUNY GER Math (Fredonia BS Molecular Genetics degree requirements will fulfill this requirement)	
SUNY GER Natural Sciences (Fredonia BS Molecular Genetics degree requirements will fulfill this requirement)		SUNY GER Natural Sciences (Fredonia BS Molecular Genetics degree requirements will fulfill this requirement)	
SUNY GER Social Sciences	(3)	SUNY GER Social Sciences	(3)
SUNY GER American History	(3)	SUNY GER American History	(3)
SUNY GER Western Civilization	(3)	SUNY GER Western Civilization	(3)
SUNY GER Other World Civilizations	(3)	SUNY GER Other World Civilizations	(3)
SUNY GER Humanities (ENG 1540 Writing About Literature will fulfill this requirement	(3)	SUNY GER Humanities	(3)
SUNY GER Arts	(3)	SUNY GER Arts	(3)
SUNY GER Foreign Language	(3)	SUNY GER Foreign Language	(3)
SUNY GER Basic Communication (ENG 1530 College Composition I will fulfill this requirement)	(3)	SUNY GER Basic Communication	(3)
Fredonia Social Sciences second prefix requirement	(3)	Fredonia Social Sciences second prefix requirement	(3)
Fredonia Natural Sciences second prefix requirement (Fredonia BS Molecular Genetics degree requirements will fulfill this requirement)		Fredonia Natural Sciences second prefix requirement (Fredonia BS Molecular Genetics degree requirements will fulfill this requirement)	