Fredonia – Jamestown Community College
Articulation Agreement in Applied Mathematics

By this agreement, students who complete an associate's degree at Jamestown Community College (JCC) including CSC 1590 and MAT 1710, 1720, 2650, and 2670 are guaranteed admission with full junior standing to the Bachelor of Science (BS) Applied Mathematics degree program at SUNY Fredonia (Fredonia). By completing the associate's degree with the above courses and also completing at least seven of the ten SUNY General Education (GER) requirements at JCC, such students should be able to complete their B.S. degree at Fredonia within four additional full-time semesters, taking a minimum of 15 credits per semester. Fredonia will accept up to 75 total JCC credits from courses listed in Table 1 and courses transferred as additional electives toward fulfillment of the requirements for the BS Applied Mathematics degree.

GPA Criteria: 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. The mathematics major at Fredonia requires, as one of those two courses, either CHEM 115/125 General Chemistry I Lecture/Lab (JCC students take the equivalent course CHE 1550 College Chemistry I) or PHYS 230/232 University Physics I Lecture/Lab (JCC students take the equivalent course PHY 1710 Analytical Physics I).

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.

Applied mathematics majors are encouraged to take additional courses in computer science consistent with their career and educational goals.

Students may double major in Applied Mathematics and Mathematics, Applied Mathematics and Mathematics Adolescence Education, or Applied Mathematics and Mathematics-Middle Childhood by completing all requirements for both majors.

TABLE 1 – JCC/FREDONIA EQUIVALENT COURSES FOR B.S. APPLIED MATHEMATICS

JCC Courses		Fredonia Courses	
CHE 1550 College Chemistry I (or PHY 1710 Analytical Physics I)	4 credits	CHEM 115/125 General Chemistry I Lecture/Lab (or PHYS 230/232 University Physics I Lecture/Lab)	4-5 credits
Natural Sciences Elective (second prefix)	3	Natural Sciences Elective (second prefix)	3
CSC 1590 Computer Programming	3	CSIT 121 Computer Science I	3
ENG 1530 English Composition II		ENGL 101 English Comp	3
ENG 1540 Writing about Literature	3	ENGL 099 Non-Major English Elective	3
MAT 1540 Elementary Statistics	3	STAT 200 Statistical Methods	3
MAT 1710 Calculus & Analytic Geometry I	4	MATH 122 University Calculus I	4
MAT 1720 Calculus & Analytic Geometry II	4	MATH 123 University Calculus II	4
MAT 2650 Calculus & Analytic Geometry III	4	MATH 223 University Calculus III	4
MAT 2680 Ordinary Differential Equations	3	MATH 224 Differential Equations	3
MAT 2670 Linear Algebra	3	MATH 231 Linear Algebra	4
		MATH 210 Mathematical Structures and Proof	4
		MATH 329 Mathematical Modeling	3
		MATH 350 Probability and Statistics	3
		MATH 405 Senior Seminar	1
Social Science Elective (SUNY Gen Ed course)	3	Social Science Elective (SUNY Gen Ed course)	3
Social Science Elective (second prefix, second SUNY Gen Ed category)	3	Social Science Elective (second prefix, second SUNY Gen Ed category)	3
SUNY Gen Ed Elective – American History	3	SUNY Gen Ed Elective – American History	3
SUNY Gen Ed Elective – Western Civilization	3	SUNY Gen Ed Elective – Western Civilization	3
SUNY Gen Ed Elective – Other World Civilizations	3	SUNY Gen Ed Elective – Other World Civilizations	3
SUNY Gen Ed Elective – The Arts	3	SUNY Gen Ed Elective – The Arts	3
SUNY Gen Ed Elective – Foreign Language	3	SUNY Gen Ed Elective – Foreign Language	3

And Additional Courses for Applied Mathematics/Finance and Economics Track:		**And Additional Courses for Applied Mathematics/Finance and Economics Track:**	
BUS 1510 Principles of Financial Accounting	4	ACCT 201 Principles of Financial Accounting	3
BUS 1520 Principle of Managerial Accounting	4	ACCT 202 Principles of Managerial Accounting	3
ECO 2610 Macroeconomic Principles	3	ECON 201 Principles of Macroeconomics	3
ECO 2620 Microeconomic Principles	3	ECON 202 Principles of Microeconomics	3
		MATH 365 Financial Mathematics	3
		One additional MATH or STAT course numbered 311 or higher, as advised	3
No JCC equivalencies are offered		Four courses chosen from the list indicated in the college catalog, as advised	12
or Additional Courses for Applied Mathematics/Statistics and Operations Research Track:		**or Additional Courses for Applied Mathematics/Statistics and Operations Research Track:**	
		STAT 355 Mathematical Statistics	3
		Two of the following four courses: MATH 359 Probability Models in Operations Research MATH 375 Deterministic Models in Operations Research STAT 351 Applied Statistics STAT 408 Special Topics	10-12
Plus courses toward a minor in a field to which statistics or operations research can be applied	varies	Plus a minor in a field to which statistics or operations research can be applied	varies
or Additional Courses for Applied Mathematics/Physics Track (Note- In satisfying the requirements for this track, the student will earn a minor in Physics. The minor must be declared):		**or Additional Courses for Applied Mathematics/Physics Track (Note- In satisfying the requirements for this track, the student will earn a minor in Physics. The minor must be declared):**	
PHY 1710 Analytical Physics I	4	PHYS 230/232 University Physics I Lecture/Lab	5
PHY 2710 Analytical Physics II	4	PHYS 231/233 University Physics II Lecture/Lab	5
PHY 2720 Modern Physics	4	PHYS 234 Modern Physics	4
		MATH 325 Numerical Analysis	3
		PHYS 331 Theoretical Mechanics (or PHYS 333 Electricity and Magnetism)	3
		PHYS 425 Mathematical Physics I	3
		PHYS 426 Mathematical Physics II	3
		One additional MATH or STAT course numbered 311 or higher, as advised	3

Students must earn a B or better in MAT 2670 Linear Algebra and MAT 1670 Discrete Math to earn credit for the equivalent math courses at Fredonia.

Duration of Agreement: This agreement will become effective in fall 2014 and shall be reviewed every three years, or earlier if significant changes are made to either the JCC or the Fredonia program.