



**Master Articulation Agreement and  
CIVIL AND ENVIRONMENTAL ENGINEERING TECHNOLOGY  
course equivalencies**

**Between**

**State University of New York (SUNY) Canton**

**and**

**Jamestown Community College**

**Effective date: September 15, 2017**

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This articulation agreement is intended to facilitate the transfer of graduates from **Jamestown Community College** to **SUNY Canton**. The objectives, terms and conditions of this agreement are set forth as follows:

### **OBJECTIVES**

1. To attract qualified students to Jamestown Community College and SUNY Canton.
2. To facilitate upward educational and career mobility by increasing accessibility to baccalaureate education for qualified individuals.
3. To provide students with advisement in academic and career planning throughout their program of study.
4. To reduce unnecessary repetition of general education and curricular content by providing seamless articulation opportunities.
5. To facilitate communication and academic coordination between faculty, students, and administrators at each institution.

### **ELIGIBILITY/ADMISSION REQUIREMENTS**

1. Students must complete the admission process at SUNY Canton.
2. Students must meet the academic requirements listed in the "*Terms of Agreement*."

### **TERMS OF AGREEMENT**

Students who have completed an associate's degree program at Jamestown Community College will be accepted into their choice of bachelor's degree program at SUNY Canton.

**STUDENT ELIGIBILITY:** Graduates of Jamestown Community College must possess a **minimum cumulative grade point average of 2.0 on a 4.0 scale** to transfer to SUNY Canton. SUNY Canton **assures acceptance into their choice of degree program as detailed below for Jamestown Community College students who have a cumulative GPA of 3.0 or better**.<sup>1</sup> Students are encouraged to apply during their last semester at Jamestown Community College.

**TRANSFER CREDIT:** A grade of C or better must be earned for a course to transfer as meeting a requirement for the bachelor's degree. (See each attached *Appendix A* for transfer course equivalencies.)



**OPPORTUNITY TO GRADUATE:** Each attached Appendix A includes a course equivalency chart to facilitate transfer from Jamestown Community College to a SUNY Canton bachelor's degree program. Graduates of Jamestown Community College who transfer a minimum of 54 credits from the courses listed in the appropriate Appendix A will have the opportunity to earn the bachelor's degree with four consecutive semesters of coursework through SUNY Canton. Note that each Appendix A lists courses in an eight-semester sequence which is followed by non-transfer students who begin their coursework at SUNY Canton, and that Jamestown Community College students are not required to take the equivalent courses in any specific semester sequence. Note also that each attached Appendix A lists all Jamestown Community College courses that have approved for transfer toward meeting requirements for a bachelor's degree, and that students can typically transfer more than the 60 credits required for a Jamestown Community College associate's degree.

**DEGREE REQUIREMENTS:** SUNY Canton requires that 120 or more<sup>1</sup> credits be completed to earn a bachelor's degree, with a minimum of 30 credits taken in residence at SUNY Canton. Fifteen credits of courses in the major or acceptable cognates as determined by the department at SUNY Canton must be taken. Students will be required to matriculate in accordance with the guidelines specified in the policies of the academic catalog in effect at the date of matriculation.

**IMPLEMENTATION:** Students transferring under this agreement into SUNY Canton will, whenever possible, be provided with a projected outline of their individual requirements for the bachelor's degree.

**LOCATION:** SUNY Canton reserves the right to use classroom space at alternative locations and to offer all, or part, of any degree program online.

**FINANCIAL AID:** A student accepted into SUNY Canton under this agreement is eligible to participate in all financial aid, grants, and scholarship programs customarily open to transfer students.

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<sup>1</sup> *Exceptions may apply. Program-specific requirements are stated on each individual program's current course equivalency chart which accompanies this master agreement.*

**See the following pages for Civil and Environmental Engineering Technology information.**

# Appendix A: Transfer Course Equivalencies

Effective dates: August 1, 2016 through July 31, 2019

Jamestown Community College				SUNY Canton B. Tech- Civil & Environmental Engineering Technology (2488)		
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
	ENR 1560	Introduction to Engineering and Engineering Design	4	CONS 101	Elementary Surveying	4
	MAT -1600	Precalculus <sup>1</sup>	4	ENGS 101	Introduction to Engineering	2
	PHY 1710	Analytical Physics I	4	MATH 123	Pre-Calculus <sup>1</sup>	4
				PHYS 121/131 & PHYS 125/135	College/Univ. Physics I & Lab	4
				SOET 116	Intro to Computer Aided Drafting & Design	2
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
	ENR 2550	Mechanics-Statics	3	CONS 172	Technical Statics <sup>2</sup>	3
	ENG 1530	English Composition II (SUNY GER 10)	3	ENGL 101	Composition and the Spoken Word	3
	MAT 1710	Calculus and Analytic Geometry I	4	MATH 161	Calculus <sup>1</sup>	4
	PHY 2710	Analytical Physics II	4	PHYS 122/132 & PHYS 126/136	College/Univ. Physics II & Lab	4
		General Education Elective (SUNY GER 3, 4, 5, 6, 7, 8, or 9) <sup>3</sup>	3		GER Course (3, 4, 5, 6, 7, 8, 9) <sup>3</sup>	3
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
	CHE 1550	College Chemistry I (SUNY GER 2)	4	CHEM 150	College Chemistry I (GER 2)	4
				CONS 203	Advanced Surveying	3
	ENR 2580	Strength of Materials <sup>2</sup>	3	CONS 272	Strength of Materials for Tech <sup>2</sup>	3
				CONS 280	Civil Engineering Materials	3
	MAT 1720	Calculus and Analytic Geometry II (SUNY GER 1) <sup>1</sup>	4	MATH 162	Calculus II <sup>1</sup>	4
				MECH 221	Engineering Materials Lab	1
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
				CONS 216	Soils in Construction <sup>4</sup>	4
	CSC 1610	Computer Programming for Scientists & Engineers	3	ENGS 102	Programming for Engineers	2
	MAT 2680	Ordinary Differential Equations (L/L course credit only) <sup>1</sup>	3	MATH 364	Differential Equations <sup>1</sup>	4
		General Education Elective (SUNY GER 3, 4, 5, 6, 7, 8, or 9) <sup>3</sup>	3		GER Course (3, 4, 5, 6, 7, 8, 9) <sup>3</sup>	3
	ENR/PHY 2510	Thermodynamics (L/L course credit only) or See Approved Program Electives below and Additional Notes <sup>6(UD)+7(CHEM 155)</sup>	4		Program Elective <sup>6(UD)+7(CHEM 155)</sup>	3
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
				CONS 336	Structural Analysis	3
		General Education Elective (SUNY GER 3, 4, 5, 6, 7, 8, or 9)	3		GER Course (3, 4, 5, 6, 7, 8, 9) <sup>3</sup>	3
	CHE 2530	Organic Chemistry I (L/L course credit only) or See Approved Program Electives below and Additional Notes <sup>6(LD/UD)+7(UD)</sup>	4		Program Elective <sup>6(LD/UD)+7(UD)</sup>	3
					CONS Course <sup>5</sup>	4
					CONS Course <sup>5</sup>	4
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
				CONS 274	Construction Management	3
				SOET 250	Intro to 3D CADD and BIM	2
				SOET 370	Engineering Economics	3
					CONS Course <sup>5</sup>	3
	ENR 2560	Mechanics-Dynamics (L/L course credit only) or See Approved Program Electives below and Additional Notes <sup>6(UD)+7(UD)</sup>	3		Program Elective <sup>6(UD)+7(UD)</sup>	3
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
				SOET 377	Engineering Ethics	1
					CONS Course <sup>5</sup>	4
		General Education Elective (SUNY GER 3, 4, 5, 6, 7, 8, or 9)	3		GER Course (3, 4, 5, 6, 7, 8, 9) <sup>3(UD for Env.Eng.Tech. path)</sup>	3
					Program Elective <sup>6(UD)+7(UD)</sup>	3
		See Approved Program Electives below and Additional Notes <sup>6 only (LD)</sup>	2		Program Elective <sup>6 only (LD)</sup>	2
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
				CONS 477	Capstone Project	3
				SOET 348	Engineering Safety	1

## Appendix A: Transfer Course Equivalencies

					CONS Course <sup>5</sup>	4
					Program Elective <sup>6(UD)+7(UD)</sup>	3
					Program Elective <sup>6(UD)+7(UD)</sup>	3
<b>Accepted Transfer Credit Total</b>			<b>69</b>	<b>SUNY Program Credit Total</b>		<b>125</b>

**Course Descriptions:** <https://www.sunycc.edu/academics/college-catalog/course-descriptions/college-catalog-course-descriptions>

### Additional Notes

- <sup>1</sup> Students starting with Calculus I will take Calculus I, Calculus II, Differential Equations, and a fourth math class of their choosing and with advisement.
- <sup>2</sup> Students may take ENGS 201 Statics in place of CONS 172 and ENGS 203 Engineering Strength of Materials in place of CONS 272. Note that ENGS 201 and ENGS 203 may not be offered in like semesters to CONS 172 and CONS 272 and this substitution may alter program course sequencing.
- <sup>3</sup> GER = General Education Elective. Students must accomplish seven (7) separate GER categories: GER 3, 4, 5, 6, 7, 8, or 9. Depending on Program Elective selection, students may need to take one or more 300/400 level GER courses in order to reach 45 upper division credits.
- <sup>4</sup> Writing Intensive Course
- <sup>5</sup> **CONS Courses:** Five (5) courses are required (CONS 285 Engineering Geology, CONS 322 Hydraulics, CONS 385 Hydrology and Hydrogeology, CONS 386 Water Quality, and CONS 387 Water and Wastewater Treatment). They are being referred to as CONS courses because they will be offered every two, three, or four semesters depending on enrollment.
- <sup>6</sup> **Program Elective – Focus on Structural Civil Engineering Tech:** A list of approved Program Electives is provided below. Students wanting to focus more on structural civil engineering technology must take a total of 7 Program Electives. At least 1 must be one of the classes marked \*S (CONS 304, CONS 324, or CONS 370). Students may take additional courses designated as \*S, which is highly encouraged. Students are strongly advised to take CONS 222. Students must be sure that enough 300/400 level courses are taken to fulfill the minimum requirement of 45 upper division courses. For students focusing on structural civil eng., 5 of their 6 additional program electives must be 300/400 level. In addition to CONS 222, one additional program elective could be 100/200 level, but only with advisement. Course selection must be under advisement of and with approval of the assigned academic program advisor or program coordinator.
- <sup>7</sup> **Program Elective - Focus on Environmental Engineering Tech:** A list of approved Program Electives is provided below. Students wanting to focus on environmental engineering technology must take a total of 6 Program Electives. They must take the 2 courses marked with \*E (CHEM 155 and BIOL 150) and 4 additional program electives, with strong advisement that two of these be CONS 350 and MATH 141. It's advised that CHEM 155 be taken in Semester 4 if possible, putting off the Semester 4 GER until a later semester. It's advised that BIOL 150 be taken in Semester 5 or sooner if possible. Students may take a course designated with a \*S as an additional program elective. Students must be sure that enough 300/400 level courses are taken to fulfill the minimum requirement of 45 upper division courses. All 4 additional program elective courses must be upper division, and one upper division GER must be taken to fulfill the 45 requirement. If MATH 141 is taken a second GER must be upper division or an additional upper division elective course must be taken. Course selection must be under advisement of and with approval of the assigned academic program advisor or program coordinator.
- <sup>8</sup> Baccalaureate degrees require successful completion of the prescribed curriculum, composed of 45 upper division credit hours, 24 of which must be taken within the major. Students may need to complete additional upper division credit hours of general electives to meet this requirement.

**STUDENT ELIGIBILITY:** Graduates of Jamestown Community College must possess a **minimum cumulative grade point average of 2.0 on a 4.0 scale**. SUNY Canton assures acceptance for **Jamestown Community College students who have a cumulative GPA of 3.0 or better**. Students are encouraged to apply during their last semester at Jamestown Community College.

## Appendix A: Transfer Course Equivalencies

### Required CONS Courses

Course #	Course Name	Credit
CONS 285	Engineering Geology	4
CONS 322	Hydraulics	4
CONS 385	Hydrology and Hydrogeology	4
CONS 386	Water Quality	4
CONS 387	Water and Wastewater Treatment	3

### Approved Program Electives (JCC equivalent courses are listed in parentheses/**bold**)

Course #	Course Name	Credit
<b>*S - Students on Structural Path Must Take At Least 1</b>		
CONS 304 *S	Reinforced Concrete Design	3
CONS 324 *S	Structural Steel Design	3
CONS 370 *S	Timber Design	3
<b>*E - Students on Environmental Path Must Take Both</b>		
BIOL 150 *E	College Biology I ( <b>JCC - BIO 1570 Principles of Biology I or BIO 1575 Biology: A Molecular Approach</b> )	4
CHEM 155 *E	College Chemistry II ( <b>JCC - CHE 1560 College Chemistry II</b> )	4
<b>Other Program Electives</b>		
CONS 222	Construction Estimating	2
CONS 316	Foundation Design	3
CONS 338	Advanced Mechanics of Materials	3
CONS 350	Introduction to GIS	3
CONS 366	Structural Steel Detailing	3
CONS 368	Building Electrical and Mechanical Systems	3
CONS 372	Highways and Transportation	3
CONS 375	Structural Engineering Design	3
CONS 472	Advanced Highway Design	3
CONS 432	Civil Drafting and Design	3
CONS 226	Bridge Building	1
CONS 485	Solid Waste Management	3
CONS 486	Soil and Groundwater Remediation	3
CONS 487	Water Resources Management	3

### Approved Program Electives Continued

Course #	Course Name	Credit
<b>Other Program Electives Continued</b>		
AREA 110	Intro to Alternative Energy	3
AREA 320	Exp. and Meas. I	3
AREA 322	Passive Solar Building	3
AREA 340	Geothermal Energy	3
AREA 370	Exp. and Meas. II	3
BIOL 155	College Biology II ( <b>JCC - BIO 1580 Principles of Biology II</b> )	4
BIOL 209	Microbiology ( <b>JCC - BIO 2531/2532 Microbiology/Microbiology Lab</b> )	4
CHEM 301	Organic Chemistry I ( <b>JCC - CHE 2530 Organic Chemistry I</b> )	4
CHEM 302	Organic Chemistry II ( <b>JCC - CHE 2540 Organic Chemistry II</b> )	4
EADM 201	Fund. Of Emergency Manag.	3
ESCI 320	Weather, Climate, and Climate Change	3
LEST 388	Environmental Law	3
MATH 141	Statistics ( <b>JCC - MAT 1540 Elementary Statistics</b> )	3
MATH 341	Statistics II	3
MECH 220	Engineering Materials lecture ( <b>JCC - MCT 2230 Mechanics of Materials – 4 credits</b> )	3
MECH 340	Thermodynamics ( <b>JCC - ENR 2510 Thermodynamics</b> )	3
MECH 341	Intermediate Fluid Mechanics	3
SOET 352	Advanced REVIT and BIM Management	3
SOET 430	Systems Analysis	3
MECH XXX	Other Mech. Tech. approved course ( <b>JCC - any MCT course</b> )	3 or 4
AREA XXX	Other ARES approved course	3 or 4
ELEC XXX	Other Elec. Tech. approved course ( <b>JCC - any ELC course</b> )	3 or 4

### Program Contact

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