

# Appendix A: Transfer Course Equivalencies

Effective dates: *December 1, 2016* through *November 30, 2019*

Semester	Mohawk Valley Community College A.S. – Engineering Science			SUNY Canton B. Tech– Civil & Environmental Engineering Technology (2488)		
	Course #	Course Name	Cr	Course #	Course Name	Cr
<b>1</b>	ES 151	Introduction to Engineering	2	CONS 101	Elementary Surveying	4
	MA 253	Calculus 3 (course substitution)	4	ENGS 101	Introduction to Engineering	2
	PH 261	Engineering 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	
<b>2</b>	ES 271	Engineering Statics	3	CONS 172	Technical Statics <sup>2</sup>	3
	EN 101	English I: Composition	3	ENGL 101	Composition and the Spoken Word	3
	MA 151	Calculus I	4	MATH 161	Calculus <sup>1</sup>	4
	PH 262	Engineering Physics II	4	PHYS 122/132 & PHYS 126/136	College/Univ. Physics II & Lab	4
	BM 101	Survey of Economics (GER 3)	3		GER Course (3, 4, 5, 6, 7, 8, 9) <sup>3</sup>	3
<b>3</b>	CH 141	General Chemistry I	4	CHEM 150	College Chemistry I (GER 2)	4
	ES 261	Mechanics of Materials	3	CONS 203	Advanced Surveying	3
	MA 152	Calculus II	4	CONS 272	Strength of Materials for Tech <sup>2</sup>	3
				CONS 280	Civil Engineering Materials	3
				MATH 162	Calculus II <sup>1</sup>	4
<b>4</b>	CI 140	Cmptr Prog for Engin and Sci	3	MECH 221	Engineering Materials Lab	1
	MA 260	Differential Equations	4	CONS 216	Soils in Construction <sup>4</sup>	4
	EN 102	English 2: Idea & Values Lit (GER 7)	3	ENGS 102	Programming for Engineers	2
				MATH 364	Differential Equations <sup>1</sup>	4
					GER Course (3, 4, 5, 6, 7, 8, 9) <sup>3</sup>	3
<b>5</b>					Program Elective <sup>6(UD) *7(CHEM 155)</sup>	3
	PY 101	Intro to General Psychology	3	CONS 336	Structural Analysis	3
	ES 281	Thermodynamics (Restricted Elective)	3		GER Course (3, 4, 5, 6, 7, 8, 9) <sup>3</sup>	3
					Program Elective <sup>6(LD/UD) *7(UD)</sup>	3
					CONS Course <sup>5</sup>	4
<b>6</b>					CONS Course <sup>5</sup>	4
				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
<b>7</b>					Program Elective <sup>6(UD) *7(UD)</sup>	3
				SOET 377	Engineering Ethics	1
					CONS Course <sup>5</sup>	4
					GER Course (3, 4, 5, 6, 7, 8, 9) <sup>2(UD for Env.Eng.Tech. path)</sup>	3
					Program Elective <sup>6(UD) *7(UD)</sup>	3
<b>8</b>					Program Elective <sup>6 only (LD)</sup>	2
				CONS 477	Capstone Project	3
				SOET 348	Engineering Safety	1
					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>54</b>	<b>SUNY Program Credit Total</b>		<b>125</b>

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Transfer credits for Mohawk Valley Community College program requirements will be accepted as follows, however do not serve to fulfill requirements of SUNY Canton's Civil and Environmental Engineering Technology, B.Tech program:

Mohawk Valley Community College			SUNY Canton		
Course #	Course Name	Cr	Course #	Course Name	Cr
ED 100	College Seminar	1	FYEP 101	First Year Experience	1
ES 291	Electrical Circuits I	4	ELEC 101	Electric Circuits I	3
ES 272	Engineering Dynamics	3	ENGS 202	Dynamics	3

**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 Associate of Science- Engineering Science program at Mohawk Valley Community College must possess a **minimum cumulative grade point average of 2.0 on a 4.0 scale**. SUNY Canton assures acceptance for Mohawk Valley Community College students who have a **cumulative GPA of 3.0 or better**. Students are encouraged to apply during their last semester at Mohawk Valley Community College.

### 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

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	4
CHEM 155 *E	College Chemistry II	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	4
BIOL 209	Microbiology	4
CHEM 301	Organic Chemistry	4
CHEM 302	Organic Chemistry II	4
EADM 201	Fund. Of Emergency Manag.	3
ESCI 320	Weather, Climate, and Climate Change	3
LEST 388	Environmental Law	3
MATH 141	Statistics	3
MATH 341	Statistics II	3
MECH 220	Engineering Materials lecture	3
MECH 340	Thermodynamics	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	3 or 4
AREA XXX	Other ARES approved course	3 or 4
ELEC XXX	Other Elec. Tech. approved course	3 or 4

### Program Contact

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# Appendix A: Transfer Course Equivalencies

## APPROVALS

**Mohawk Valley Community College:**



Timothy Thomas  
Associate Dean for Physical Sciences,  
Engineering and Applied Technology

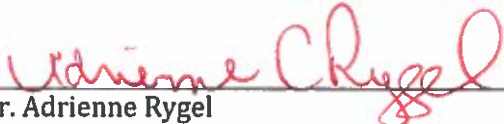
1/26/17  
Date

**SUNY Canton:**



Michael Newtown  
Interim Dean, Canino School of Engineering  
Technology

1/5/17  
Date



Dr. Adrienne Rygel  
Curriculum Coordinator, Civil & Environmental  
Technology

1/4/2017  
Date