

Appendix A: Transfer Course Equivalencies

Effective dates: August 1, 2017 through July 31, 2020

Dutchess County Community College A.S. – Engineering Science				SUNY Canton B. Tech– Civil & Environmental Engineering Technology (2488)		
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
1	ENR 215	Surveying I (Technical Elective)	3	CONS 101	Elementary Surveying	4
	ENR 101	Introduction to Engineering	2	ENGS 101	Introduction to Engineering	2
	MAT 223	Calculus III (course substitution)	4	MATH 123	Pre-Calculus ¹	4
	PHY 151	Engineering Physics I	4	PHYS 121/131 & PHYS 125/135	College/Univ. Physics I & Lab	4
	ENT 131	Technical Drawing	1	SOET 116	Intro to Computer Aided Drafting & Design	2
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
2	ENR 208	Engineering Statics	3	CONS 172	Technical Statics ²	3
	ENG 101	Composition I	3	ENGL 101	Composition and the Spoken Word	3
	MAT 221	Calculus I	4	MATH 161	Calculus ¹	4
	PHY 152	Engineering Physics II	4	PHYS 122/132 & PHYS 126/136	College/Univ. Physics II & Lab	4
	BHS 103	Social Problems in Today's World (Appendix C)	3		GER Course (3, 4, 5, 6, 7, 8, 9) ³	3
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
3	CHE 121	General Chemistry I	4	CHEM 150	College Chemistry I (GER 2)	4
				CONS 203	Advanced Surveying	3
	ENR 204	Mechanics of Materials (Advanced Technical Elective)	4	CONS 272	Strength of Materials for Tech ²	3
				CONS 280	Civil Engineering Materials	3
	MAT 222	Calculus II	4	MATH 162	Calculus II ¹	4
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
4				CONS 216	Soils in Construction ⁴	4
	ENR 102	Computer Programming for Engineers	3	ENGS 102	Programming for Engineers	2
	MAT 224	Differential Equations	4	MATH 364	Differential Equations ¹	4
		American History Elective (GER 4)	3		GER Course (3, 4, 5, 6, 7, 8, 9) ³	3
	ENR 209	Engineering Dynamics (L/L course credit only) (Advanced Technical Elective)	3		Program Elective ^{6(UD)+7(CHEM 155)}	3
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
5				CONS 336	Structural Analysis	3
	ENG 102	Composition II (Appendix G)	3		GER Course (3, 4, 5, 6, 7, 8, 9) ³	3
					Program Elective ^{6(LD/UD)+7(UD)}	3
					CONS Course ⁵	4
					CONS Course ⁵	4
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
6				CONS 274	Construction Management	3
				SOET 250	Intro to 3D CADD and BIM	2
				SOET 370	Engineering Economics	3
					CONS Course ⁵	3
					Program Elective ^{6(UD)+7(UD)}	3
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
7				SOET 377	Engineering Ethics	1
					CONS Course ⁵	4
					GER Course (3, 4, 5, 6, 7, 8, 9) ^{3(UD for Env.Eng.Tech. path)}	3
					Program Elective ^{6(UD)+7(UD)}	3
					Program Elective ^{6 only (LD)}	2
Semester	Course #	Course Name	Cr	Course #	Course Name	Cr
8				CONS 477	Capstone Project	3
				SOET 348	Engineering Safety	1
					CONS Course ⁵	4
					Program Elective ^{6(UD)+7(UD)}	3
					Program Elective ^{6(UD)+7(UD)}	3
Accepted Transfer Credit Total			59	SUNY Program Credit Total		125

TOTAL Credits Accepted for Transfer (from both tables above): 59

Additional Notes

- ¹ Students starting with Calculus I will take Calculus I, Calculus II, Differential Equations, and a fourth math class of their choosing and with advisement.
- ² 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.
- ³ 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.
- ⁴ Writing Intensive Course
- ⁵ 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.
- ⁶ 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.
- ⁷ 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.
- ⁸ 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 Dutchess County Community College must possess a **minimum cumulative grade point average of 2.0 on a 4.0 scale**. SUNY Canton assures acceptance for Dutchess County Community College students who have **a cumulative GPA of 3.0 or better**. Students are encouraged to apply during their last semester at Dutchess County 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

Course #	Course Name	Credit
*S - Students on Structural Path Must Take At Least 1		
CONS 304 *S	Reinforced Concrete Design	3
CONS 324 *S	Structural Steel Design	3
CONS 370 *S	Timber Design	3
*E - Students on Environmental Path Must Take Both		
BIOL 150 *E	College Biology I	4
CHEM 155 *E	College Chemistry II	4
Other Program Electives		
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
Other Program Electives Continued		
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

Adrienne Rygel, Department Chair, Civil & Construction Technology
 SUNY Canton
 34 Cornell Drive, NN 105
 Canton, New York 13617
 (315) 386-7163
rygela@canton.edu