

SUNY Canton Civil & Environmental Engineering Technology BT 2488				Fall 2015	Students need to pass a total of 30 GER credits with a course in at least 7 of the 10 categories		
Program Coordinator: Adrienne Rygel				Advisors: Robert Burnett, Joseph Reilly			
1 <sup>st</sup> Semester		Credit	Term	Grade	Category	Sem. passed	Cr
ENGS 101	Introduction to Engineering	2			(1) Math		
SOET 116	Intro to Computer Aided Dr+D	2			(2) Science		
CONS 101	Elementary Surveying	4			(3) Social Science		
MATH 123	Pre-Calculus Algebra	4			(4) American History		
PHYS 121/131	College Physics I or University Physics I	3			(5) West. Civ.		
PHY 125/135	College Physics I Lab or University Physics I Lab	1			(6) Other World		
2 <sup>nd</sup> Semester		16			(7) Humanities		
CONS 172	Technical Statics <sup>2</sup>	3			(8) The Arts		
ENGL 102	Oral and Written Communication	3			(9) For. Language		
	GER (3,4,5,6,7, 8, or 9) <sup>3</sup>	3			(10) Communication		
MATH 161	Calculus I <sup>1</sup>	4					
PHYS 122/132	College Physics II or University Physics II	3					
PHYS 126/136	College Physics II Lab or University Physics II Lab	1			<b>Additional GER Credits Passed</b>		
3 <sup>rd</sup> Semester		17					
CONS 203	Advanced Surveying	3					
CONS 272	Strength of Materials for Tech <sup>2</sup>	3					
CONS 280	Civil Engineering Materials	3					
MECH 221	Engineering Materials Lab	1					
MATH 162	Calculus II <sup>1</sup>	4					
CHEM 150	College Chemistry I	4			<b>Total GER Credits</b>		
4 <sup>th</sup> Semester		18					
ENGS 102	Programming for Engineers	2					
CONS 216	Soils in Construction <sup>4</sup>	4					
Math 364	Differential Equations <sup>1</sup>	4					
	GER (3,4,5,6,7,8,9)	3					
	Program Elective	3/4					
5 <sup>th</sup> Semester		16/17					
CONS 336	Structural Analysis	3					
	Program Elective	3/4					
	Program Elective	2					
	Program Elective	3					
	GER (3,4,5,6,7,8,9)	3					
6 <sup>th</sup> Semester		14/15					
SOET 370	Engineering Economics	3					
CONS 274	Construction Management	3					
SOET 250	Intro to 3D CADD And BIM	2					
	GER (3,4,5,6,7,8,9)	3					
	Program Elective	3					
7 <sup>th</sup> Semester		14					
SOET 377	Engineering Ethics	1					
	Program Elective	4					
	Program Elective	3					
	Program Elective	3					
	Program Elective	3					
		14					

8 <sup>th</sup> Semester				
CONS 477	Capstone Project	3		
SOET 348	Engineering Safety	1		
	Program Elective	3		
	Program Elective	3		
	Program Elective	3		
		13		

**Graduation Requirements: Total Semester Credit Hours – 122/124      Minimum G.P.A. 2.0**

Student \_\_\_\_\_ Certified for Graduation: Yes No

ID# \_\_\_\_\_ Certified by: \_\_\_\_\_

Class of \_\_\_\_\_ G.P.A. 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ Total G.P.A. \_\_\_\_\_

<sup>1</sup> A student will be accept into the program if ready for MATH 123.

<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 7 separate GER categories: GER 3, 4, 5, 6, 7,8, or 9. Students interesting in focusing on environmental engineering technology must take 2 300/400 level GER courses in order to reach 45 upper division credits.

<sup>4</sup> Writing Intensive Course

<sup>5</sup> Program Elective: A list of approved Program Electives is provided below. Five (5) courses are required - they are marked \*\* - they will be offered on a rotational basis, every 2, 3, or 4 semesters depending on the demand. Students wanting to focus more on structural civil engineering technology must also take 2 of the courses marked \*S, one must be CONS 222, and 5 additional program electives. Students wanting to focus on environmental engineering technology must also take the 4 courses marked with \*E and 2 additional program electives. Students may take a course designated with a \*S and \*E as an additional program elective if not already taken. Students must be sure that enough 300/400 level courses are taken to fulfill the minimum requirement of 45 upper division courses. Unless an upper division GER is taken, all additional program elective courses must be upper division. Course selection should be under advisement of and with approval of the assigned academic advisor or program coordinator.

Approved Program Electives					
CONS 222 *S	Construction Estimating	2	AREA 110	Intro to Alternative Energy	3
CONS 285 **	Engineering Geology	4	AREA 320	Exp. and Meas. I	3
CONS 304 *S	Reinforced Concrete Design	4	AREA 322	Passive Solar Building	3
CONS 316	Foundation Design	3	AREA 340	Geothermal Energy	3
CONS 322 **	Hydraulics	4	AREA 370	Exp. and Meas. II	3
CONS 324 *S	Structural Steel Design	3	BIOL 150 *E	College Biology I	4
CONS 338	Advanced Mechanics of Materials	3	BIOL 155	College Biology II	4
CONS 350 *E	Introduction to GIS	3	BIOL 209	Microbiology	4
CONS 366	Structural Steel Detailing	3	CHEM 155 *E	College Chemistry II	4
CONS 368	Building Elect. and Mech. Systems	3	CHEM 301	Organic Chemistry I	4
CONS 370 *S	Timber Design	3	CHEM 302	Organic Chemistry II	4
CONS 372	Highways and Transportation	3	EADM 201	Fund. Of Emergency Manag.	3
CONS 385 **	Hydrology and Hydrogeology	4	ESCI 320	Weather, Climate, and Climate Change	3
CONS 386 **	Water Quality	4	LEST 388	Environmental Law	3
CONS 387 **	Water and Wastewater Treatment	3	MECH 220	Engineering Materials lecture	3
CONS 472	Advanced Highway Design	3	MECH 340	Thermodynamics	3
CONS 432	Civil Drafting and Design	3	MECH 341	Intermediate Fluid Mechanics	3
CONS 226	Bridge Building	1	SOET 352	Advanced REVIT and BIM Management	3
CONS 485	Solid Waste Management	3	SOET 430	Systems Analysis	3
CONS 486	Soil and Groundwater Remediation	3	MATH 141 *E	Statistics	3
CONS 487	Water Resources Management	3	Other MECH, AREA or ELEC with advisor approval.		