## Cleveland State University Fenn College of Engineering Bachelor of Civil Engineering

First Year								
Fall Semester	Credits	Major	Gen Ed	Spring Semester Credits Major Gen Ed				
ENG 101 College Writing	3		W/C	ENG 102 or ESC 102 Technical Writing 3 w/c				
MTH 181 Calculus I	4	Х	M/QL	MTH 182 Calculus 4 x M/QL				
CHM 261 General Chemistry I	4	Х	NS	PHY 241 University Physics I 5 X NS				
CHM 266 General Chemistry I Lab	1	Х	NS	General Education Elective 3				
ESC 100 New Student Orientation	1	Х	INTRO	GEO 100 Introduction to Geology 3 X				
ESC 120 Intro to Engineering Design	2	Х						
Semester Total	15			Semester Total 18				

Second Year									
Fall Semester	Credits	Major	Gen Ed		Spring Semester	Credits	Major	Gen Ed	
PHY 242 University Physics II	5	Х			ESC 211 Strength of Materials	3	Х		
ESC 201 Statics	3	Х			CVE 310 Strength of Materials Lab	2	Х		
ESC 250 Differential Equations for Engineer	3	Х			CVE 360 Mechanics of Fluids Basic Thermal	4	Х		
MTH 283 Multivatiare Calculus for Enginee	2	Х			ESC 200 Engineering History & Heritage	3	Х	SS	
CVE 211 Surveying	3	Х			ESC 282 Engineering Economy	3	Х	SS	
CVE 211 Surveying Lab	2	Х					Х		
Semester Total	18				Semester Total	15			

Third Year								
Fall Semester	Credits	Major	Gen Ed	Spring Semester Credits Major Gen Ed				
ESC 202 Dynamics	3	Х		CVE 322 Structural Steel Design 3 X				
CVE 312 Structural Analysis I	3	Х		CVE 331 Intro to Geotechnical Engineering 3 X				
CVE 361 Hydraulics Engineering	3	Х		CVE 332 Geotechnical Engineering Lab 2 x				
CVE 362 Hydraulics Engineering Lab	2	Х		CVE 461 Hydrologic Analysis 3 x				
CVE 371 Environmental Engineering I	3	Х		CVE 422 Reinforced Concrete Design 3 X				
CVE 372 Environmental Engineering I Lab	2	Х						
Semester Total	16			Semester Total 14				

Fourth Year									
Fall Semester	Credits	Major	Gen Ed	Spring Semester Credits Major Gen					
CVE 426 Preliminary Design	2	Х	SPAC	CVE 403 Construction Planning & Estimating 3 X					
CVE 429 Foundation Engineering	3	Х		CVE 427 Capstone Design 2 X CAF					
CVE 446 Transportation Engineering	3	Х		CVE Tech Elective 3 X					
PHL 215 Engineering Ethics	3	Х	A&H WAC	CVE Tech Elective 3					
General Education Elective	3		A&H	General Education Elective 3 DIV					
General Education Elective	3		DIV						
Apply for Spring graduation prior to Sep 9	th								
Semester Total	17			Semester Total 14					
Degree Total: 127 hours									

Assumptions: college-level readiness in MTH & ENG; no Foreign Language Deficiency

## College/ Program Notes:

The plan above is a suggested guide to ensure that all General Education, College, University, and Major requirements are met within 4 years of study. Students may deviate from the suggested placement of Gen Ed courses, although the M/QL and W/C requirements should be completed during the first year of study.

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\*General Electives ensure that a student accumulates the minimum credit hour totals needed for graduation. Students must have a minimum of 128 total credit hours, of which a minimum of 42 credit hours must be upper division (300 or 400-level courses). Depending upon other elective choices made, students may not need as many general electives as indicated above, or may need additional electives.

## **University Notes:**

SS = Social Sciences Requirement (2 courses, one of which must be focused outside the US\*\*)

INTRO = Introduction to University Life Requirement (one course)

W/C = Writing/Composition Requirement (two courses; C or better required)

M/QL = Mathematics/Quantitative Literacy Requirement (two courses)

NS = Natural Sciences (two courses, one of which must have a lab)

CAP = Capstone Requirement

\*\* of the SS and A&H courses focused outside the US, one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)

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