# **BACHELOR OF SCIENCE IN CIVIL ENGINEERING - HONORS COLLEGE**

Catalogue

Student:	Date:	2021-2022
netID:	Advisor:	<u> </u>

### Year 1

Semester 1	Cr	Status	Semester 2	Cr	Status
CEMS 050 - CEMS First Year Seminar	1		SU: CE 003 - First Year Design Experience	2	
CHEM 031 - General Chemistry I	4		QR: CS 021 - Computer Programming I	3	
ENGR 002 - Graphical Communication	2		QR: MATH 022 - Calculus II	4	
FWIL (HCOL 085 - Seminar) <sup>1</sup>	3		PHYS 030 - Prob. Solv. Session I [Optional]	[1]	
QR: MATH 021 - Calculus I	4		PHYS 031 - Physics for Engineers I	4	
General Education Elective <sup>1</sup> (Social Science)	3		HCOL 086 (D1/2) <sup>1</sup> - HCOL Seminar	3	
Total credits	17		Total credits	16-17	

### Year 2

Semester 1	Cr	Status	Semester 2	Cr	Status
CE 001 - Statics	3		General Education Elective (HCOL 186 Seminar)	3	
CE 010 - Geomatics	4		SU: CE 132 - Environmental Systems	3	
QR: MATH 121 - Calculus III	4		QR: MATH 271 - Appl. Math. for Engr. & Sci.	3	
QR: STAT 143 - Statistics for Engineers	3		QR: MATH 122 - Applied Linear Algebra	3	
HCOL 185 (D1) <sup>1</sup> - HCOL Seminar	3		EE 075 - Electrical Circuits & Sensors	4	
Total credits	17		Total credits	16	

#### Year 3

Teal 3					
Semester 1	Cr	Status	Semester 2	Cr	Status
CE 100 - Mechanics of Materials	3		CE 101 - Materials & Structures lab	3	
CE 133 - Transportation Systems	3		CE 170 - Structural Analysis I	3	
CE 160 - Hydraulics	3		CE 180 - Geotechnical Engineering	3	
CE 162 - Hydraulics Lab	2		CE 182 - Geotechnical Principles Lab	2	
General Education Elective <sup>1</sup> (Humanities)	3		SU: CE 151 - Water & Wastewater Engr	3	
ME 012 - Dynamics	3		CEMS 101 - HCOL Research Experience	1	
Total credits	17		Total credits	15	

## Year 4

Semester 1	Cr	Status	Semester 2	Cr	Status
SU: CE 134 - System Focused Design Engr	3		SU: CE 175 - Capstone Design	3	
CE Design Elective: 172, 173, 241, 281, or 286 <sup>3</sup>	3		CE Design Elective <sup>3</sup>	3	
Technical Elective <sup>2</sup> (CE 193 - Thesis)	3		CE Elective <sup>4</sup> (CE 194 - Thesis, with advisor approval)	3	
CE Design Elective <sup>3</sup>	3		CE Elective⁴	3	
GEOL 001, BIOL 001 or BIOL 002	4		CE Elective⁴	3	
Total credits	16		Total credits	15	

Minimum Total Credits Required for Degree: 128

- 1. University Requirements & General Education Electives: University Requirements include Diversity (D1/D2), Sustainability (SU), Quantitative Reasoning (QR) and Foundational Writing & Information Literacy (FWIL). At least 3 credits General Education Electives must be from the Humanities and at least 3 credits must be from the Social Sciences. Refer to the CEMS Program Electives for approved Humanities and Social Science elective courses (https://www.uvm.edu/cems/cems-program-electives).
- 2. Technical Elective: All 100 level or above courses in engineering (BME, CE, EE, EMGT, ENGR, ME).
- 3.DesignElectives: <u>CE 172</u>, <u>CE 173</u>, <u>CE 201</u>, <u>CE 241</u>, <u>CE 247</u>, <u>CE 253</u>, <u>CE 255</u>, <u>CE 256</u>, <u>CE 262</u>, <u>CE 263</u>, <u>CE 265</u>, <u>CE 273</u>, <u>CE 281</u> <u>CE 285</u>, <u>CE 286</u>, <u>CE 288</u> and some <u>CE 295</u> (Special Topics) courses (consult advisor). At least one design elective must be from <u>CE 172</u>, <u>CE 173</u>, <u>CE 241</u>, <u>CE 281</u> and <u>CE 286</u>.
- 4. CE Electives: Any 200-level CE course, CE 172, CE 173, and EMGT 201.
- N.B. CE 134 must be taken before or together with CE 175. CE 175 the capstone experience is to be taken in the last or second-last semester before graduation and should not be taken until after four of the following five courses are completed:

This document is an advising tool and should be used in combination with a student's degree audit, as well as the published Catalogue for 2021-2022 found at http://catalogue.uvm.edu/