# BACHELOR OF SCIENCE IN CIVIL ENGINEERING - HONORS COLLEGE

# Catalogue

## 2022-2023

Student: netID: Date:

Advisor:

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 <sup>1</sup> (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						
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 102 - HCOL Research Experience	1		
CEMS 101 - HCOL Research Experience	1					
Total credits	18		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 Elective <sup>4</sup>	3	
GEOL 001, BIOL 001 or BIOL 002	4		CE Elective <sup>4</sup>	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 [except EMGT 170], ENGR, ME). 3.DesignElectives: CE 172, CE 173, CE 201, CE 241, CE 247, CE 253, CE 255, CE 256, CE 262, CE 263, CE 265, CE 273, CE 281 CE 285, CE 286, CE 288 and some CE 295 (Special Topics) courses (consult advisor). At least one design elective must be from CE 172, CE 173, CE 241, CE 286.

4. CE Electives: Any 200-level CE course, <u>CE 172</u>, <u>CE 173</u>, and <u>EMGT 201</u>.

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 2022-2023 found at http://catalogue.uvm.edu/