## **BACHELOR OF SCIENCE IN CIVIL ENGINEERING**

Catalogue

Student:	Date:	2020-2021
netID:	Advisor:	

### Year 1

TCUI 1					
Semester 1	Cr	Status	Semester 2	Cr	Status
CEMS 1500 - CEMS First Year Seminar <sup>1</sup>	1		CEE 1000 - Intro to Civil & Envr. Engr. 1	2	
CHEM 1400 - General Chemistry I	4		CS 1210 - Computer Programming I (QR)	3	
ENGR 1020 - Graphical Communication	2		MATH 1248 - Calculus II	4	
FWIL (ENGS 1001/HCOL 1000) <sup>2</sup>	3		PHYS 1510 - Prob. Solv. Session I [opt]	[1]	
MATH 1234 - Calculus I	4		PHYS 1500 - Physics for Engineers I	4	
General Education Elective <sup>3</sup>	3		Diversity 1 or 2 <sup>3</sup>	3	
Total credits	17		Total credits	16-17	

#### Year 2

Semester 1	Cr	Status	Semester 2	Cr	Status
CEE 1100 - Statics	3		ME 1120 - Dynamics	3	
CEE 2000 - Geomatics	4		CEE 2120 - Environmental Systems	3	
MATH 2248 - Calculus III	4		MATH 3201 - Adv. Engineering Mathematics	3	
STAT 2430 - Statistics for Engineers	3		MATH 2522 - Applied Linear Algebra	3	
Diversity 1 <sup>3</sup>	3		EE 2175 - Electrical Circuits & Sensors	4	
Total credits	17		Total credits	16	

### Year 3

Semester 1	Cr	Status	Semester 2	Cr	Status
CEE 2100 - Mechanics of Materials	3		CEE 3010 - Materials & Structures lab	3	
CEE 3400 - Transportation Systems	3		GEOL 1050, BIOL 1400 or BIOL 1450	4	
CEE 3600 - Hydraulics	3		CEE 3700 - Structural Analysis I	3	
CEE 3610 - Hydraulics Lab	2		CEE 3800 - Geotechnical Principles	3	
CEE 3510 - Water & Wastewater Engr	3		CEE 3810 - Geotechnical Principles Lab	2	
			General Education Elective <sup>3</sup>	3	
Total credits	14		Total credits	18	

# Year 4

Semester 1	Cr	Status	Semester 2	Cr	Status
CE 185 - Capstone Design I	3		CE 186 - Capstone Design II	3	
Technical Elective <sup>4</sup>	3		CEE Design Elective <sup>5</sup>	3	
CEE Design Elective <sup>5</sup>	3		CEE Elective <sup>6</sup>	3	
CEE Design Elective <sup>5</sup>	3		CEE Elective <sup>6</sup>	3	
General Education Elective <sup>3</sup>	3		CEE Elective <sup>6</sup>	3	
Total credits	15		Total credits	15	

Minimum Total Credits Required for Degree: 128

- 1. <u>CEMS 050</u> & <u>CE 003</u> are degree requirements designed for first-year students. Internal and external transfer students may substitute 100-level or higher engineering (BME, CE, EE, EMGT, ENGR, ME) credits for these requirements.
- 2. Foundational Writing and Information Literacy (FWIL) is a University requirement. Students must take either ENGS 001 or HCOL 085 (only for students enrolled in the Honors College). Students transferring from the College of Arts and Sciences can use a TAP class to fulfill this requirement.
- 3. University & CEE General Education Requirements include: 15 credits of approved General Education (GenEd) electives including one 3-credit D1 course, a second 3-credit D1 or D2 course, and 3 credits each of Humanities and Social Sciences.
- 4. Technical Elective: All 100 level or above courses in engineering (BME, CE, EE, EMGT [except EMGT 170], ENGR, ME).
- 5. Design Electives: <u>CE 172</u>, <u>CE 173</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 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>, and <u>CE 286</u>.
- 6. CE Electives: Any 200-level CE course, CE 172, CE 173, and EMGT 201.
- N.B. The University's Sustainability (SU) and Quantitative Reasoning (QR) requirements are built into the Civil

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 2020-2021 found at http://catalogue.uvm.edu/