Last Updated: 9/19/2023

Baccalaureate Civil Engineering & Honors Curriculum
Fall 2023

Hours	FIRST SEMESTER	Hours	SECOND SEMESTER
	Freshman Year		
4	Chem 105 Principles of Chem I ((Pre Req)1 yr hs chem. or Chem 103; Math 106 or c//)	5	Phys 205 Science & Eng Honors Phys (Math 171)[7]
3	Engl 298 Writing and Research Honors	3	Honors 280 Arts & Humanities
4	ForL 203	4	Math 172 Calculus II or Math 182 (Math 171)[7]
4	Math 171 Calculus I (Math 106/108)[1]	2	Math 220 Linear Alg or Math 230 (Math 171 c//)
2	ENGR 120 Innovation in Design	3	EconS 198 Economics Honors[6]
17	Total Hours **ADMIT TO MAJOR[1]**	17	Total Hours
	Sophomore Year		
3	CE 211 Statics (Math 172/182 c//; Phys 201 + 211/205 c//)	3	ME 212 Dynamics (CE 211)
4	ForL 204	3	CE 215 Mechanics of Material (CE 211)
3	Honors 370 Global Issues in Social Sciences	2	CE 203 Numerical Computing for Engrs (Math 172, 220)[5]
2	Math 273 Calculus III or Math 283 (Math 172)[7]	3	Stat 360 or 370 Statistics (Math 172)
3	Biological Sciences	1	ME 220 Materials Lab (CE 215 c//)
15	Total Hours	4	Phys 202 + 212 Classical Phys (Phys 201 + 211 or Phys 205) or Phys 206 Honors (Phys 201 + 211 or 205) **OR** Geol 102 **OR** Chem 106 or 116 (Chem 105)[2, 7]
		16	Total Hours
	Junior Year **Writing Portfolio: must complete after 60 credits** **Apply for Graduation before last semester begins**		
2	CstM 254 Construction Graphics[5]	2	CE 321 Numerical Methods for Civ. Engr (Math 273, Math 220)[5]
2	CE 302 Intro to Surveying (Math 171)[5]	3	CE 322 Transportation Engineering (Stat 360/370c//)[5]
3	CE 315 Fluid Mechanics (ME 212) [5]	3	CE 351 Water Resources Engineering (CE 315)[5]
4	CE 317 Geotechnical Engr (CE 215; CE 315 c//)[5]	3	Math 315 Diff Equations (Math 273, 220 c//)
3	CE 330 Structural Engineering (CE 215)[5]	3	Engl 402 Technical Writing **OR** Com 400 Communicating Science & Technology
3	CE 341 Environmental Engineering (Chem 105)	3	MSE 201 Materials Science (Chem 105; Phys 201) **OR** ME 301 Thermodynamics (Phys 201) **OR** CE 320 Construction Materials (CE 211; CE 215; Com 400/Engl 402c//)[5]
17	Total Hours	17	Total Hours
	Senior Year **All students required to fulfill the Experiential Requirement prior to graduation. Recommended to take (FE) Fundamentals of Engineering Exam.**		
3	Honors 380 Global Issues in the Arts and Humanities	4	CE 465 Integrated CE Des or ENGR 421/431 IDEX[4,5*]
3	CE Laboratory (CE 400, 415, 416)[5]	1	CE 480 Ethics & Professionallism[5]
9	CE Electives[3]	3	Honors 390 Global Issues in the Sciences
3	CE 463 Engineering Administration[5]	9	CE Electives[3]
18	Total Hours	17	Total Hours

See the department for senior year options.

1Incoming first-year students or change of major students ready to take Math 171 or a higher math course are directly admitted to the major.

2Course strongly recommended for an Environmental Engineering emphasis.

3Elective Courses: The total credit hours for elective courses must be distributed such that at least 3 courses, not including the lab are DES (design emphasis) in order for a student to qualify for a degree. CE electives, not including CE laboratory, will be selected from at least two different areas (environmental, geotechnical, hydraulics, structural, sustainability, and transportation/pavement).

4 CE 465 or ENGR 421/431 will fulfill the Honors Senior Thesis Option and the Research Seminar, application required for ENGR 421.

5Admitted major in CE, or instructor permission required.

6 EconS 198 is an approved substitution for Honors 270 for engineering majors.

7 Engineering students who take Phys 205, Chem 116,Math 182, or Math 283 do not take Honors 290.

*CE 465 to be taken in final semester.

**Removed [C] COM 102 or H D 205 as requirement for Honors students due to the extensive writing, presenting, essays, research, and discussions in seminar courses.