

## Baccalaureate Civil Engineering & Honors Curriculum Fall 2018

Hours	FIRST SEMESTER	Hours	SECOND SEMESTER
<b><u>Freshman Year</u></b>			
4	Chem 105 Principles of Chem I (Pre Req) <sup>1</sup> 1 yr hs chem. or Chem 101; Math 106 or c://)	5	Phys 205 Science & Eng Honors Phys (Math 171) <sup>1, 7</sup>
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) <sup>1, 7</sup>
4	Math 171 Calculus I (Math 106/108) <sup>1</sup>	2	Math 220 Linear Alg or Math 230 (Math 171 c//)
2	ENGR 120 Innovation in Design	3	EconS 198 Economics Honors <sup>6</sup>
17	Total Hours	17	Total Hours
<b><u>Sophomore Year</u></b>			
3	CE 211 Statics (Math 172/182 c//; Phys 201/205 c//) <sup>1</sup>	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	EE 221 Numerical Computing for Engrs (Math 172, 220)
2	Math 273 Calculus III or Math 283 (Math 172) <sup>7</sup>	3	Stat 360 or 370 Statistics (Math 172)
4	Biol 102 <b>OR</b> MBioS 101 <sup>2</sup>	1	ME 220 Materials Lab (CE 215 c//)
16	Total Hours	4	Phys 202 Classical Phys (Phys 201) or Phys 206 Honors (Phys 201 or 205) <b>OR</b> Geol 102 <b>OR</b> Chem 106 or 116 <sup>2, 7</sup>
	CERTIFY <sup>1</sup>	16	Total Hours
<b><u>Junior Year</u></b>			
Writing Portfolio: must complete after 60 credits Apply for Graduation after 70 credits			
2	CstM 254 Construction Graphics <sup>5</sup>	2	CE 303 CE Computer Applications
2	CE 302 Intro to Surveying (Math 171) <sup>5</sup>	3	CE Breadth Elective <sup>8</sup>
3	CE 315 Fluid Mechanics (ME 212) <sup>5</sup>	3	CE Breadth Elective <sup>8</sup>
4	CE 317 Geotechnical Engr (CE 215; CE 315 c//) <sup>5</sup>	3	Math 315 Diff Equations (Math 273, 220 c//)
3	CE Breadth Elective <sup>8</sup>	3	Engl 402 Technical Writing <b>OR</b> Com 400 Communicating Science & Technology
3	CE Breadth Elective <sup>8</sup>	3	MSE 201 Materials Science (Chem 105; Phys 201) <b>OR</b> ME 301 Thermodynamics (Phys 201) <b>OR</b> CE 320 Construction Materials (CE 211; CE 215; Com 400/Engl 402c//)
17	Total Hours	17	Total Hours
<b><u>Senior Year</u></b>			
<b><u>All students required to take Fundamentals of Engineering Exam and fulfill the Experiential Requirement prior to graduation.</u></b>			
3	Honors 380 Global Issues in the Arts and Humanities	3	CE 465 Integrated CE Des or ENGR 421/431 IDEX <sup>4*</sup>
3	CE Laboratory (CE 400, 415, 416) <sup>5</sup>	3	CE 463 Engineering Administration <sup>5</sup>
9	CE Electives <sup>3</sup>	3	Honors 390 Global Issues in the Sciences
1	CE 466 FE Exam Review <sup>5</sup>	9	CE Electives <sup>3</sup>
1	CE 480 Ethics & Professionalism <sup>5</sup>	18	Total Hours
17	Total Hours		

See the department for senior year options.

<sup>1</sup>These classes must be completed prior to certification.

<sup>2</sup>Course strongly recommended for an Environmental Engineering emphasis.

<sup>3</sup>Elective 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 including CE laboratory will be selected from at least two different areas (environmental, geotechnical, hydraulics, structural, sustainability, and transportation/pavement).

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

<sup>5</sup>Certified major in CE, or instructor permission required.

<sup>6</sup>EconS 198 is an approved substitution for Honors 270 for engineering majors.

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

<sup>8</sup>Choose three courses from CE 322(Math/Stat 360/370 c//; CE 302 c//)<sup>5</sup>, 330(CE 215)<sup>5</sup>, 341(Chem 105; MBioS 101 rec), and 351(CE 315)<sup>5</sup> and one other upper-division CE elective; may opt to take all four 300 level courses.

\*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.