

# Civil Engineering - General Program

2020-2021 Catalog

130 Total Credits

## First Year

Semester 1	Semester 2
3 CE 160 (Engr Problem Solving)	1 CE 105 (Intro to CE Profession)
4 Chem 177 (General Chemistry I)	3 CE 111 (Surveying I)
1 Chem 177L (Gen Chemistry Lab)	2 CE 170 (Civil Engr Graphics)
3 Engl 150 (Critical Think Comm)	4 Math 166 (Calculus II)
4 Math 165 (Calculus I)	5 Phys 221 (Classical Physics I)
1 Lib 160 (Library)	3 Sp Cm 212 (Public Speaking)
R Engr 101 (Engr Orientation)	0 CE 120 (optional-Learning Community)
0 CE 120 (optional-Learning Community)	

16 Total Credits

18 Total Credits

## Sophomore Year

Semester 3	Semester 4
3 Engl 250 (WOVE Comp)	3 CE 206 (Engr Economic Analysis)
3 CE 274 (Statics)	3 EM 324 (Mechanics of Materials)
3 Chem 178 (General Chemistry II)*	3 EM 378 (Mechanics of Fluids)
1 Chem 178L (Gen Chemistry II Lab)*	3 ME 345 (Dynamics)
4 Math 265 (Calculus III)	3 Math 266 (Differential Equations)
3 Geol 201 (Geology for Engineers)	3 Statistics Elective

17 Total Credits

18 Total Credits

## Junior Year

Semester 5	Semester 6
3 CE 326 (Environmental Engr)	3 CE 334 (Concrete Design I)**
3 CE 332 (Structural Analysis I)	3 CE 372 (Hydrology & Hydraulics)
4 CE 360 (Geotechnical Engineering)	3 CE 382 (Design of Concretes)
1 EM 327 (Mechanics of Materials Lab)	3 CE 306 (CE Project Management)
3 Technical Communication Elective	3 Engineering Topic Elective
3 CE 355 (Transportation Engr)	3 SSH Elective

17 Total Credits

18 Total Credits

## Senior Year

Semester 7	Semester 8
3 CE 333 (Steel Design I)**	R CE 403 (Prgm Outcome Assessment)
5 Engineering Topic Elective	3 CE 485 (CE Design)
3 SSH Elective	3 Engineering Topic Elective
3 SSH Elective	3 CE Design Elective
	3 SSH Elective

14 Total Credits

12 Total Credits

Shading indicates Basic Program courses

\* Phys 232/232L may be substituted for Chem 178/178L

\*\* CE 460 (Foundation Engineering) may be substituted for CE 333 or CE 334

Compiled from official ISU catalog 4-year plans ([catalog.iastate.edu/undergraduatemajors-alpha/](http://catalog.iastate.edu/undergraduatemajors-alpha/))

# Civil Engineering – Environmental Specialization

2020-2021 Catalog

131 Total Credits

## First Year

### Semester 1

- 3 CE 160 (Engr Problem Solving)
- 4 Chem 177 (General Chemistry I)
- 1 Chem 177L (Gen Chemistry Lab)
- 3 Engl 150 (Critical Think Comm)
- 4 Math 165 (Calculus I)
- 1 Lib 160 (Library)
- R Engr 101 (Engr Orientation)
- 0 CE 120 (optional-Learning Community)

16 Total Credits

### Semester 2

- 1 CE 105 (Intro to CE Profession)
- 3 CE 111 (Surveying I)
- 2 CE 170 (Civil Engr Graphics)
- 4 Math 166 (Calculus II)
- 5 Phys 221 (Classical Physics I)
- 3 SSH Elective
- 0 CE 120 (optional-Learning Community)

18 Total Credits

## Sophomore Year

### Semester 3

- 3 Engl 250 (WOVE Comp)
- 3 CE 274 (Statics)
- 3 Chem 178 (General Chemistry II)
- 1 Chem 178L (Gen Chemistry II Lab)
- 4 Math 265 (Calculus III)
- 3 Geol 201 (Geology for Engineers)

17 Total Credits

### Semester 4

- 3 CE 206 (Engr Economic Analysis)
- 3 EM 324 (Mechanics of Materials)
- 3 Chem 231 (Elem Organic Chemistry)
- 1 Chem 231L (Elem Organic Chem Lab)
- 3 Math 266 (Differential Equations)
- 3 Statistics Elective

16 Total Credits

## Junior Year

### Semester 5

- 3 CE 326 (Environmental Engr)
- 3 CE 332 (Structural Analysis I)
- 4 CE 360 (Geotechnical Engineering)
- 3 EM 378 (Mechanics of Fluids)
- 1 EM 327 (Mechanics of Materials Lab)
- 3 Technical Communication Elective

17 Total Credits

### Semester 6

- 3 CE 334 (Concrete Design I)
- 3 CE 372 (Hydrology & Hydraulics)
- 3 CE 382 (Design of Concretes)
- 3 CE 306 (CE Project Management)
- 3 Biol 251 (Biol Process in Environment)
- 3 CE 355 (Transportation Engr)

18 Total Credits

## Senior Year

### Semester 7

- 3 CE 420 (Environmental Engr Chem)
- 3 CE 421 (Envr Biotechnology)
- 2 Micro 201 (Intro Microbiology)
- 3 SSH Elective
- 3 CE Design Elective
- 3 Sp Cm 212 (Public Speaking)

17 Total Credits

### Semester 8

- R CE 403 (Prgm Outcome Assessment)
- 3 CE 428 (Treatment Plant Design)
- 3 CE 485 (CE Design)
- 3 SSH Elective
- 3 SSH Elective

12 Total Credits

Shading indicates Basic Program courses

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