

CIVIL ENGINEERING DEGREE REQUIREMENTS

B.S. in Civil Engineering Degree Requirements	Hours
Required outside the College of Engineering	50
Required in the College of Engineering	66
Technical Electives	6
Electives outside Major Rubric	6
Total Hours – B.S. in Civil Engineering	128

Required outside the College of Engineering

Courses	Hours
ENGL 160 – English Composition I	3
ENGL 161 – English Composition II	3
Humanities electives ^a	6
Social sciences electives ^a	6
MATH 180 – Calculus I	5
MATH 181 – Calculus II	5
MATH 210 – Calculus III	3
MATH 220 – Introduction to Differential Equations I	3
PHYS 141 – General Physics I (Mechanics)	4
PHYS 142 – General Physics II (Electricity and Magnetism)	4
CHEM 112 – General College Chemistry I	5
Total Hours – Required outside the College	47

^aHumanities and Social Sciences electives should be selected from the Course Distribution Chart in the College of Liberal Arts and Sciences. Students must choose courses from two different departments in the humanities and in the social sciences. One of the humanities or social sciences electives must be an approved Cultural Diversity course. A list of approved Cultural Diversity courses may also be found in the College of Liberal Arts and Sciences section.

Required in the College of Engineering

Courses	Hours
ENGR 100 – Orientation ^a	0 ^a
CS 108 – Fortran Programming for Engineers	3
CME 201 – Statics	3
CME 203 – Strength of Material	3
CME 205 – Structural Analysis I	3
CME 211 – Fluid Mechanics and Hydraulics	3
CME 216 – Introduction to Environmental Engineering	3
CME 260 – Properties of Materials	3
CME 300 – Composition and Properties of Concrete	2
CME 301 – Behavior and Design of Metal Structures	3
CME 302 – Transportation Engineering	3
CME 310 – Design of Reinforced Concrete Structures	3
CME 311 – Water Resources Engineering	3
CME 315 – Soil Mechanics and Laboratory	4
CME 396 – Senior Design I	3
CME 397 – Senior Design II	3
CME 402 – Geometric Design of Highway Facilities	3
CME 405 – Foundation Analysis and Design	3
CME 434 – Finite Element Analysis I	3
One of the following courses:	3
ECE 210 – Electrical Circuit Analysis (3)	
ME 205 – Introduction to Thermodynamics (3)	
IE 201 – Engineering Economy	3
ME 210 – Engineering Dynamics	3
ME 250 – Engineering Graphics and Design	3
Total Hours – Required in the College of Engineering	66

^aENGR 100 is a one-semester-hour course, but the hour does not count toward the total hours required for graduation.

Technical Electives

Courses	Hours
At least two courses to be chosen from the following list to strengthen the design content:	6
CME 400 – Advanced Design of Reinforced Concrete (3)	
CME 401 – Advanced Design of Metal Structures (3)	
CME 406 – Bridge Design (3)	
CME 408 - Traffic Engineering and Design (3)	
CME 409 – Structural Analysis II (3)	
CME 410 – Design of Prestressed Concrete Structures (3)	
CME 415 – Environmental Geotechnology (3)	
CME 421 – Water Treatment Design (3)	
CME 422 – Wastewater Treatment Design (3)	
CME 425 – Environmental Remediation Engineering (3)	
CME 427 – Engineering Hydrology (3)	
CME 428 – Groundwater Hydraulics and Contaminant Transport Modeling (3)	
CME 454 – Structural Analysis and Design of Tall Buildings (3)	
Three additional hours to be selected from any 400-level CME courses, including those listed above.	3
Total Hours – Technical Electives	9

Note: Students who are interested in taking the Illinois Structural Engineering Licensure Examination must take two courses in the structural design area. This statement is not a degree requirement and the availability of the structural design courses varies from time to time.

Electives outside Major Rubric

Courses	Hours
Students complete electives outside the CME rubric	6
Total – Electives outside Major Rubric	6