

# BS in Civil Engineering

## Program Codes:

20FQ0106BS

## Degree Requirements

To earn a Bachelor of Science in Civil Engineering degree from UIC, students need to complete university, college, and department degree requirements. The Department of Civil, Materials, and Environmental Engineering degree requirements are outlined below. Students should consult the [College of Engineering](#) section for additional degree requirements and college academic policies.

Code	Title	Hours
<b>Summary of Requirements</b>		
Nonengineering and General Education Requirements		51
Required in the College of Engineering		59
Technical Electives		18
<b>Total Hours</b>		<b>128</b>

## Nonengineering and General Education Requirements

Code	Title	Hours
<b>Required Courses</b>		
ENGL 160	Academic Writing I: Writing in Academic and Public Contexts	3
ENGL 161	Academic Writing II: Writing for Inquiry and Research	3
Exploring World Cultures course <sup>a</sup>		3
Understanding the Creative Arts course <sup>a</sup>		3
Understanding the Past course <sup>a</sup>		3
Understanding the Individual and Society course <sup>a</sup>		3
Understanding U.S. Society course <sup>a</sup>		3
MATH 180	Calculus I <sup>b</sup>	4
MATH 181	Calculus II <sup>b</sup>	4
MATH 210	Calculus III <sup>b</sup>	3
MATH 220	Introduction to Differential Equations	3
One of the following:		3
MATH 310	Applied Linear Algebra	
STAT 381	Applied Statistical Methods I <sup>c</sup>	
PHYS 141	General Physics I (Mechanics) <sup>b</sup>	4
PHYS 142	General Physics II (Electricity and Magnetism) <sup>b</sup>	4
CHEM 122	Matter and Energy <sup>b,c</sup>	3
CHEM 123	Foundations of Chemical Inquiry I <sup>b,c</sup>	2
<b>Total Hours</b>		<b>51</b>

<sup>a</sup> Students should consult the [General Education](#) section of the catalog for a list of approved courses in this category.

<sup>b</sup> This course is approved for the Analyzing the Natural World General Education category.

<sup>c</sup> To fulfill their degree requirements, students must either take STAT 381 or CME 207.

<sup>d</sup> General Education credit is given for successful completion of both CHEM 122 and CHEM 123.

## Required in the College of Engineering

Code	Title	Hours
<b>Required Courses</b>		
ENGR 100	Engineering Success Seminar <sup>a</sup>	1
CS 109	Programming for Engineers with MatLab	3
CME 197	Introduction to Civil and Environmental Engineering	0
CME 201	Statics	3
CME 203	Strength of Materials	3
CME 205	Structural Analysis I	3
CME 211	Fluid Mechanics and Hydraulics	3
CME 260	Properties of Materials	3
CME 290	Engineering Surveying	1
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 322	Environmental Engineering	3
CME 396	Civil Engineering Systems Design	2
CME 402	Geometric Design of Highway Facilities	3
CME 405	Foundation Analysis and Design	3
CME 497	Capstone Design	2
One of the following:		3
IE 201	Financial Engineering	
CME 207	Engineering Probability and Economics <sup>b</sup>	
ME 210	Engineering Dynamics	3
ME 250	Introduction to Engineering Design and Graphics	3
or CME 297	Civil and Environmental Engineering Drawing and Design	
<b>Total Hours</b>		<b>59</b>

<sup>a</sup> ENGR 100 is a one-semester-hour course, but the hour does not count toward the total hours required for graduation.

<sup>b</sup> To fulfill their degree requirements, students must take either STAT 381 or CME 207.

## Technical Electives

Code	Title	Hours
<b>Courses</b>		
Select six Technical Elective courses (total of 18 hours), which can be any 400-level CME course (with faculty advisor approval) other than CME 493, CME 494, and CME 496. <sup>a</sup>		18
<b>Total Hours</b>		<b>18</b>

*a In order to apply CME 493, CME 494, or CME 496 to this requirement, a student (and the faculty advisor) must separately petition for this substitution, and the Director of Undergraduate Studies or Department Head must approve the request, prior to the student's enrollment in the course. These courses, if approved by the student's faculty advisor, must be taken as 3-hour courses.*

### Sample Course Schedule

Course	Title	Hours
<b>Freshman Year</b>		
<b>First Semester</b>		
MATH 180	Calculus I	4
CHEM 122	Matter and Energy	3
CHEM 123	Foundations of Chemical Inquiry I	2
ENGL 160	Academic Writing I: Writing in Academic and Public Contexts	3
General Education Core course		3
ENGR 100	Engineering Success Seminar <sup>a</sup>	1
<b>Hours</b>		<b>15</b>
<b>Second Semester</b>		
MATH 181	Calculus II	4
PHYS 141	General Physics I (Mechanics)	4
ENGL 161	Academic Writing II: Writing for Inquiry and Research	3
CME 197	Introduction to Civil and Environmental Engineering	0
ME 250 or CME 297	Introduction to Engineering Design and Graphics or Civil and Environmental Engineering Drawing and Design	3
General Education Core course		3
<b>Hours</b>		<b>17</b>
<b>Sophomore Year</b>		
<b>First Semester</b>		
MATH 210	Calculus III	3
PHYS 142	General Physics II (Electricity and Magnetism)	4
CS 109	Programming for Engineers with MatLab	3
CME 201	Statics	3
CME 207 or IE 201	Engineering Probability and Economics or Financial Engineering	3
<b>Hours</b>		<b>16</b>
<b>Second Semester</b>		
MATH 220	Introduction to Differential Equations	3
MATH 310 or STAT 381	Applied Linear Algebra or Applied Statistical Methods I	3
CME 203	Strength of Materials	3
ME 210	Engineering Dynamics	3
CME 211	Fluid Mechanics and Hydraulics	3
General Education Core course		3
<b>Hours</b>		<b>18</b>
<b>Junior Year</b>		
<b>First Semester</b>		
CME 205	Structural Analysis I	3
CME 302	Transportation Engineering	3
CME 315	Soil Mechanics and Laboratory	4

CME 322	Environmental Engineering	3
CME 290	Engineering Surveying	1
General Education Core course		3
<b>Hours</b>		<b>17</b>
<b>Second Semester</b>		
CME 310	Design of Reinforced Concrete Structures	3
CME 311	Water Resources 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
General Education Core course		3
<b>Hours</b>		<b>17</b>
<b>Senior Year</b>		
<b>First Semester</b>		
CME 396	Civil Engineering Systems Design	2
CME 402	Geometric Design of Highway Facilities	3
CME Technical Elective I		3
CME Technical Elective II		3
CME Technical Elective III		3
<b>Hours</b>		<b>14</b>
<b>Second Semester</b>		
CME 405	Foundation Analysis and Design	3
CME 497	Capstone Design	2
CME Technical Elective IV		3
CME Technical Elective V		3
CME Technical Elective VI		3
<b>Hours</b>		<b>14</b>
<b>Total Hours</b>		<b>128</b>

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