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 <u>College of Engineering</u> section for additional degree requirements and college academic policies.

Code	Title	Hours
Summary of Requ	uirements	
Nonengineering an	d General Education Requirements	51
Required in the Co	llege of Engineering	59
Technical Electives	3	18
Total Hours		128

Nonengineering and General Education Requirements

Code	Title	Hours
Required Courses		
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 Cult	ures course ^a	3
Understanding the C	reative Arts course ^a	3
Understanding the P	ast course ^a	3
Understanding the In	dividual and Society course ^a	3
Understanding U.S.	Society course ^a	3
MATH 180	Calculus I ^b	4
MATH 181	Calculus II ^b	4
MATH 210	Calculus III ^b	3
MATH 220	Introduction to Differential Equations	3
One of the following:		3
MATH 310	Applied Linear Algebra	
STAT 381	Applied Statistical Methods I c	
PHYS 141	General Physics I (Mechanics) ^b	4
PHYS 142	General Physics II (Electricity and Magnetism) ^b	4
CHEM 122	Matter and Energy ^{b,c}	3
CHEM 123	Foundations of Chemical Inquiry I b,c	2
Total Hours		51

a Students should consult the <u>General Education</u> section of the catalog for a list of approved courses in this category.

- b This course is approved for the Analyzing the Natural World General Education category.
- c To fulfill their degree requirements, students must either take STAT 381 or CME 207.

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

Required in the College of Engineering

Code	Title	Hours
Required Courses		
ENGR 100	Engineering Success Seminar ^a	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	
ME 210	Engineering Dynamics	3
ME 250	Introduction to Engineering Design and Graphics	3
or CME 297	Civil and Environmental Engineering Drawin Design	g and
Total Hours		59

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

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

Technical Electives

Code	Title	Hours
Courses		
Select six Tech which can be a approval) other	nical Elective courses (total of 18 h ny 400-level CME course (with facu than CME 493, CME 494, and CMI	ours), 18 Ity advisor E 496. ^a
Total Hours		18

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
Freshman Year		
First Semester		
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 co	burse	3
ENGR 100	Engineering Success Seminar ^a	1
	Hours	15
Second Semester		
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 co	burse	3
	Hours	17
Sophomore Year		
First Semester		
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
	Hours	16
Second Semester		
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 co	burse	3
	Hours	18
Junior Year		
First Semester		
CME 205	Structural Analysis I	3
CME 302	Transportation Engineering	3
CME 315	Soil Mechanics and Laboratory	4

	Total Hours	128
	Hours	14
CME Technical Elective V	1	3
CME Technical Elective V		3
CME Technical Elective IV	/	3
CME 497	Capstone Design	2
CME 405	Foundation Analysis and Design	3
Second Semester		
	Hours	14
CME Technical Elective III	I	3
CME Technical Elective II		3
CME Technical Elective I		3
CME 402	Geometric Design of Highway Facilities	3
CME 396	Civil Engineering Systems Design	2
First Semester		
Senior Year		
	Hours	17
General Education Core c	ourse	3
CME 301	Behavior and Design of Metal Structures	- 3
CME 300	Composition and Properties of Concrete	2
CME 260	Properties of Materials	3
CME 311	Water Resources Engineering	3
CME 310	Design of Reinforced Concrete Structures	3
Second Semester	Hours	17
General Education Core c	ourse	3
CME 290	Engineering Surveying	1
CIVIE 322		5
CME 322	Environmental Engineering	

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