Bachelor of Science Requirements for CEE

Freshman Year	**Fall**	**Spring**
Math 1A & 1B, Calculus	4	4
Chem 1A	3	
Physics 7A, Physics for Scientists and Engineers		4
CE 93, Engineering Data Analysis		3
Data Science 8	4	
Reading and Composition Course 1	4	
First Humanities and Social Science Elective		4
Total	**15**	**15**
Sophomore Year		
Math 53 & 54, Multivariable Calculus, Linear Algebra and Differential Equations	4	4
Physics 7B, Physics for Scientists and Engineers	4	
Engin 7, Introduction to Computer Programming for Scientists and Engineers		4
Basic Science Breadth Elective (CE 70 or Bio 1B or Chem 1B)	3	
CE C30/ME C85, Introduction to Solid Mechanics		3
CE 60, Structure and Properties of Civil Engineering Materials		3
Reading and Composition Course 2	4	
Total	**15**	**14**
Junior Year		
CE 11, Engineered Systems and Sustainability		3
CE 100, Elementary Fluid Mechanics OR CE 130N, Mechanics of Structures	3-4	
Engineering Fundamentals Elective (see below)	3-4	
CEE Applications see below (9 units)	3	6
Second & Third Humanities and Social Studies Electives	4	4
Total	**13-15**	**13**
Senior Year		
CEE Extension (see below)	6	3
Capstone Design (either semester; see below)		3-4
CE 167, Project Management, Ethics, Law	3	
Fourth Humanities and Social Studies Elective	4	
Total	**13**	**6**

CEE Applications (9 units required)*	**CEE Extensions (3courses/9 units required)**	**Capstone Design (1 course required)***
CE 103, Hydrology (Spring) CE 111, Environmental Engineering (Fall) CE 120, Structural Engineering (Spring) CE 155, Transportation Systems Engineering (Spring) CE 175, Geotechnical and Geoenvironmental Engineering (Spring) CE 191, Civil and Environmental Systems Analysis (Spring)	Any CEE course not being counted towards required units. Up to 4 units of CE H194 can be counted as 1 CEE course. Up to 3 units of CEE graduate coursework may be counted towards the degree[2] **Engineering Fundamentals Elective (1 course required)** Engin 40 (ME 40) Thermodynamics, or ME 104, Engineering Mechanics II or EECS 127 or CS C100	CE 105, Applied Environmental Fluid Mechanics (Spring) CE 112, Environmental Engineering Design (Spring) CE 122N and L, Design of Steel Structures (N Fall, L Spring) CE 123N and L, Design of Reinforced Concrete Structures (N Fall, L Spring) CE 153, Design of Transportation Facilities (Fall) CE 179, Geosystems Engineering Design (Fall) CE 180, Life Cycle Design & Construction (Spring) CE 186, Design of Cyber-Physical Systems (Spring)

[1] See coe.berkeley.edu/hssreq for a list of approved humanities and social studies courses.

[2] Undergraduates must have a technical GPA of 3.0 and obtain permission in order to enroll in CEE graduate courses.

**Course offerings may change at any time, without notice.