

**CEE Undergraduate Curriculum
(Freshman Admits Prior to Fall 2007)**

<i>Freshman Year (Common First Year)</i>	<i>Fall</i>	<i>Spring</i>
Math 1A, 1B: Calculus	4	4
Chemistry 1A	4	-
Physics 7A: Physics for Scientists and Engineers	-	4
E 10: Engineering Design & Analysis OR E 28: Graphic Communication in Engineering	3	-
E 11: Principles of Environmental Engineering & Science	-	2
CE 92: Intro to Civil & Environmental Engineering ²	<1>	<1>
Electives: Humanities / Social Studies ¹	4	4
Minimum Total Units	15-16	14-15
<i>Sophomore Year</i>	<i>Fall</i>	<i>Spring</i>
Math 53-54: Multivariable Calculus, Linear Algebra, Diff. Eqns.	4	4
Physics 7B: Physics for Scientists and Engineers	4	-
Basic Science Elective (one of the following): Chem 1B: General Chemistry Physics 7C: Physics for Scientists & Engineers	-	4
E 36: Engineering Mechanics I	2	-
E 77: Intro to Computer Programming for Scientists & Engin.	4	-
CE 60: Structure & Properties of CEE Materials	-	3
CE 70: Engineering Geology	-	2
CE 93: Engineering Data Analysis	-	3
Minimum Total Units	14	16
<i>Junior Year</i>	<i>Fall</i>	<i>Spring</i>
CE 100: Elementary Fluid Mechanics	-	4
CE 130: Mechanics of Materials	3	-
Engineering Science Elective (one of the following): E 115: Thermodynamics ME 104: Engineering Mechanics II ME 105: Thermodynamics ME C105B: Thermodynamics & Biothermodynamics	-	3-4
Elective Core (4 of 7): CE 103: Hydrology CE 111: Environmental Engineering CE 120: Structural Engineering CE 155: Transportation Systems Engineering CE 167: Engineering Project Management CE 175: Geotechnical & Geoenvironmental Engineering CE 191: Civil & Environmental Systems Analysis	9	3
Electives: Humanities / Social Studies ¹	4	4
Minimum Total Units	16	14-15

Senior Year	Fall	Spring
CE 192: Art & Science of Civil & Environmental Eng. Practice	-	1
Engineering Electives: 15 units of upper division course work offered in the College of Engineering or in Chemical Engineering; 12 of these units must be upper division CE courses, not used for other program requirements. Students are encouraged to take E 190. Courses numbered 197-199, BioE 100, E 100, E 124, E 140, E 193, and E 195 are not accepted. Students taking E 115 can count 1 unit toward the 15 units.	15	-
Design Elective (one of the following): CE 104: Design of Hydraulic Structures CE 112: Environmental Engineering Design CE 122: Design of Steel Structures CE 123: Design of Reinforced Concrete Structures CE 153: Design of Transportation Facilities CE 177: Foundation of Engineering Design CE 180: Design, Construction & Maintenance of CEE Systems	-	3-4
Electives		6
Electives: Humanities / Social Studies ¹	-	6
Minimum Total Units	15	16-17
Notes:		
¹ . Humanites/Social Studies Electives include six courses of at least 3 units each in humanities and social studies selected from an approved list of courses. Two of these courses must fulfill the College of Engineering Reading & Composition requirement. It is strongly recommended that the first half of the Reading & Composition requirement be completed within the first year.		
² . May be taken either semester.		