

**Department of Civil and Environmental Engineering**

http://cee.fullerton.edu

(657) 278-3012

**BS in Civil Engineering Curriculum - Total 120 units**

Course	Units	Title	Prerequisites	Sem / Yr	Grade	Notes
<b>GENERAL EDUCATION COURSES: 24 UNITS</b>						
<b>MATHEMATICS COURSES: 19 UNITS</b>						
MATH 150A	4	Calculus I	MSE Qualifying Examination			
MATH 150B	4	Calculus II	MATH 150A			
MATH 250A	4	Calculus III	MATH 150B			
MATH 250B	4	Introduction to Linear Algebra & Diff. Equations	MATH 250A			
EGCE 308	3	Engineering Analysis	PHYS 226, MATH 250B			
<b>SCIENCE COURSES: 11 UNITS</b>						
PHYS 225	3	Fundamental Physics: Mechanics	MATH 150A			
PHYS 225L	1	Fundamental Physics: Mechanics Lab	PHYS 225 ***			
PHYS 226	3	Fundamental Physics: Electricity and Magnetism	PHYS 225, MATH 150B			
PHYS 226L	1	Fundamental Physics: Electricity and Magnetism Lab	PHYS 226 ***			
CHEM 123	3	Chemistry for Engineers	NONE			
<b>BASIC SCIENCES ELECTIVE COURSE : 3 UNITS</b>						
BIOL 101	3	Elements of Biology	NONE			
GEOL 101	3	Physical Geology	NONE			
GEOL 140	3	Earth's Atmosphere and Oceans	NONE			
<b>INTRODUCTORY ENGINEERING COURSES: 9 UNITS</b>						
EGCE 201	3	Statics	MATH 150B, PHYS 225			
EGCE 302	3	Dynamics	MATH 250A, EGCE 201			
EGCE 401	3	Engineering Economy and Professionalism	MATH 150A, Junior or Senior Standing			
<b>CORE COURSES : 42 UNITS</b>						
EGCE 206	1	Computer-Aided Architectural and CE Drafting	NONE			
EGCE 214	2	Engineering Surveying	EGCE 214L ***			
EGCE 214L	1	Engineering Surveying Laboratory	EGCE 214 ***			
EGCE 301	3	Mechanics of Materials	MATH 250A, EGCE 201			
EGCE 324	3	Soil Mechanics	EGCE 301			
EGCE 324L *	1	Soil Mechanics Laboratory	EGCE 324, ENGL 101			
EGCE 325	3	Structural Analysis	EGCE 301			
EGCE 325L *	1	Structural Analysis Laboratory	EGCE 325, EGCE 377, ENGL 101			
EGCE 377 *	1	Civil Engineering Materials Laboratory	EGCE 301, ENGL 101			
EGCE 408	3	Reinforced Concrete Design	EGCE 325			
EGCE 418	3	Foundation Design	EGCE 324			
EGCE 428	3	Engineering Hydraulics	EGCE 302			
EGCE 428L *	1	Engineering Hydraulics Lab	EGCE 428, ENGL 101			
EGCE 430	3	Structural Steel Design	EGCE 325			
EGCE 432	3	Computer-Aided Design in Civil Engineering	EGCE 494 ***			
EGCE 441	3	Environmental Engineering	CHEM 123, MATH 250B			
EGCE 468 *	3	Construction Engineering	EGCE 301, EGCE 401			
EGCE 494	3	Senior Design	EGCE 408, 430, 418 ***, 494L ***			
EGCE 494L	1	Senior Design Laboratory	EGCE 494 ***			
<b>TECHNICAL ELECTIVES COURSES : 12 UNITS</b>						
EGCE 411	3	Structural Dynamics	EGCE 325			
EGCE 435	3	Design of Hydraulic Structures	EGCE 428			
EGCE 436	3	Engineering Hydrology	EGCE 428 ***			
EGCE 463 **	3	Precast & Prestressed Concrete Design	EGCE 408			
EGCE 470 *	3	Proj Management & Constr Engr Practices	EGCE 468			
EGCE 466	3	Public Transit Syst Planning & operations	EGCE 302 and Senior Standing			
EGCE 481A	3	Solid Waste Management and Air Pollution Control	EGCE 441			
EGCE 482A	3	Water Quality Engineering	EGCE 441			
EGCE 493 **	3	Structural Systems Emphasis on Highrise Structures	EGCE 408, 430			
EGCE 496 **	3	Architectural Design	EGCE 206, EGCE 408 and EGCE 430			
EGCE 497	1-3	Senior Project	Senior Standing (Approval of CEE Dept.)			
EGCE 499	1-3	Independent Study	Senior Standing (Approval of CEE Dept.)			
EGCE 4XX	1-3	Other elective courses offered by CEE	CEE Department approval			

\* Meets Upper Division Writing Requirements if the grade is "C" or better. Minimum 6 units required.

\*\* Required Course for BS in Civil Engineering with Architectural Engineering Emphasis

\*\*\* Corequisite