

## DEPARTMENT OF CIVIL ENGINEERING

## Approved Civil Engineering Curriculum (Arch. Emp.) Total 129 units including all GE courses

Course	Units	Title	Prerequisites	Sem/Yr	Grade	Notes
<b>GENERAL EDUCATION COURSES: 30 UNITS</b>						
<b>MATHEMATICS COURSES: 16 UNITS</b>						
MATH 150A	4	Analytical Geometry & Calculus	MSE Qualifying Examination			
MATH 150B	4	Analytical Geometry & Calculus	MATH 150A			
MATH 250A	4	Intermediate Calculus	MATH 150B			
MATH 250B	4	Lin Alg. & Diff Eq.	MATH 250A			
<b>SCIENCE COURSES: 15 UNITS</b>						
PHYS 225	3	Fundamental Physics: Mechanical	MATH 150A			
PHYS 225L	1	Fundamental Physics: Mechanical Lab	Phys 225**			
PHYS 226	3	Fundamental Physics: E & M	PHYS 225, MATH 150B			
PHYS 226L	1	Fundamental Physics: E & M Lab	Phys 226**			
BIOL 101	3	Elements of Biology	NONE			
CHEM 115	4	Introductory General Chemistry	Chem. Placement Test			
<b>INTRODUCTORY ENGINEERING COURSES: 12 UNITS</b>						
EGCE 201	3	Statics	Math 150B, Phys 225			
EGCE 302	3	Dynamics	Math 250A, EGCE 201			
<b>EGCE 308</b>	3	Eng. Analysis & Applications	Phys 226, Math 250B			
EGCE 401	3	Engineering Economy & Profnism	Math 150A, Junior or Senior Standing			replaced 314 & 490
<b>CIVIL ENGINEERING CORE COURSES: 42 UNITS</b>						
<b>EGCE 206</b>	1	Arch. & C E Drafting & Eng. Applications	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, ENGL 101			
EGCE 377+	1	Civil Engineering Materials Laboratory	EGCE 324, EGCE 325			
EGCE 408	3	Reinforced Concrete Design	EGCE 325			
EGCE 418	3	Foundation Design	EGCE 324, EGCE 408			
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 Eng.	EGCE 206, 324 & 325			
EGCE 468+	3	Engineering Construction	EGCE 408 or eqv., and 418**			
EGCE 494	3	Design of Civil Engineering Structures	EGCE 408, 430, 418**, 494L**			
EGCE 494L	1	Design of Civil Engineering Structures Lab	EGCE 494**			
EGCE 496	3	Architectural Engineering Design	EGCE 408 or 430 or Sr. Standing			
<b>CIVIL ENGINEERING (ARCHITECTURAL EMPHASIS) ELECTIVES: 14 UNITS**</b>						
EGCE 411	3	Structural Dynamics	EGCE 325, <b>EGCE 308</b>			
EGCE 431L+	1	Advanced Structural Laboratory	EGCE 325L, and (408 or 430)			
EGCE 435	3	Design of Hydraulic Structures	EGCE 428			
EGCE 436	3	Engineering Hydrology	EGCE 428**			
EGCE 441	3	Environmental Engineering	Bio 101 or <b>Chem. 115</b>			
EGCE 463*	3	Precast & Prestressed Concrete Design	EGCE 408			
EGCE 463L+	1	Precast and Prestressed Concrete Design Lab.	EGCE 408 and 463 or equivalent			
EGCE 465+	3	Planning & Control of Eng. Const. Projects	Senior Standing			
EGCE 466	3	Public Transit Syst. Planning & Operations	Senior Standing			
EGCE 481	3	Solid Waste Technology & Mgmt	EGCE 441 or equivalent			
EGCE 482	3	Liquid Waste Technology and Mgmt	EGCE 441 or equivalent			
EGCE 493*	3	Structural Systems for Buildings	EGCE 408 and 430 and 418**			
EGCE 497	1-3	Senior Project	Sr. Standing (approval of CEE dept)			
EGCE 499	1-3	Independent Study	Sr.Standing (approval of CEE dept)			
CHEM 125	3	General Chemistry (Dept.Chair Approval Required)	Chem 120A			
GEOL 376	3	Applied Geology (Dept. Chair Approval Required)	Math 150A			
EGEE 203	3	Electric Circuits (Dept. Chair Approval required)	P 226, M 250A			
EGME 304	3	Thermodynamics (Dept. Chair Approval Required)	M 150B, P 225			

\*\* Co-requisites +Upper Division Writing Requirements. Students must take one course between CE468/465 and one between CE463L/431L.

\*Student must take one course between between CE 463 & 493. \*\*\*Students must not take elective courses without the approval of the CEE Department Advisor.