

PREREQUISITES AND COREQUISITES

Civil Engineering Courses:

<u>Course</u>	<u>Prerequisites</u>	<u>Corequisites</u>
CE 176 CE Freshman Design	none	MATH 117 or higher
CE 160 Principles of Surveying	High school algebra and trigonometry	CE 161
CE 161 Principles of Surveying Lab	none	CE 160
CE 300 Floodplain Management	Junior standing or approval of instructor	none
CE 301 Field Experience in Floodplain Management	Junior standing	none
CE 303 Construction Management	MATH 117 or higher, sophomore standing	none
CE 305 Risk Analysis	MATH 137	none
CE 310 Strengths of Materials Lab	MATH 137 and EM 222	EM 303
CE 316 Equipment & Methods	MATH 117 or higher, sophomore standing	none
CE 326 Engineering Law	none	none
CE 332 Transportation Engineering	CE 160 and 161, EM 222, and PHYS 255	none
CE 342 Fluid and Thermal Science	MATH 237, EM 222, and major status	none
CE 352 Intro to Environmental Engineering	MATH 331 and CHEM 120	none
CE 360 Estimating, Scheduling, Bidding	CE 303	CE 361
CE 361 Estimating Lab	CE 303	CE 360
CE 370 Materials of Construction	EM 303	CE 371
CE 371 Materials of Construction Lab	none	CE 370
CE 378 Route Surveying	CE 160 and 161, and AMS 163	CE 379
CE 379 Route Surveying Lab	none	CE 378
CE 380 Boundary Surveying	CE 160 and 161, and AMS 163	CE 381
CE 381 Boundary Surveying Lab	none	CE 380
CE 382 Structural Analysis	EM 303	MATH 237
CE 383 Structural Steel Design	CE 382	none
CE 384 Reinforced Concrete Design	CE 382	none
CE 400 Civil Engineering Senior Design Seminar	Senior standing or consent of instructor	CE 498 next semester
CE 410 Soil Mechanics	GEOL 111 and 113, and EM 303	CE 411
CE 411 Soil Mechanics Lab	none	CE 410
CE 412 Foundation Engineering	CE 410 and 411	none
CE 426 Advanced Construction Materials	CE 370	none
CE 436 Design/Construction Integration	Senior standing	none
CE 440 Masonry Design and Construction	CE 382, 370 and 371	none
CE 444 Bridge Engineering	CE 384 or 482	none
CE 451 Water and Wastewater Treatment	CE 352	none
CE 461 Hydrology	CE 160, CE 305 or STAT 301, CE 342, and MATH 331	none
CE 462 Hydraulic Engineering Systems	CE 461	none
CE 474 Civil Engineering Design Project	Permission of instructor	none
CE 475 Selected Topics in Civil Engineering	Permission of instructor	none
CE 476 Highway Construction	CE 370	none
CE 482 Elementary Structural Design	CE 382	none
CE 486 Steel & Concrete Construction	CE 316	none
CE 498 Senior Design Project	CE 400	none

Engineering Mechanics, Math, and Science Courses:

<u>Course</u>	<u>Prerequisites</u>	<u>Corequisites</u>
EM 222 Statics	MATH 136	MATH 137 and PHYS 255
EM 303 Mechanics of Deformable Solids	MATH 137 with C or better, EM 222 with C or better, and PHYS 255 with C or better	none
MATH 136 Calculus and Analytic Geometry I	4 years of high school math, including: algebra II, geometry, trigonometry, and satisfactory score on placement exam; or MATH 117 with C or better; or MATH 118 with C or better	none
MATH 137 Calculus and Analytic Geometry II	MATH 136 with C or better	none
MATH 237 Multivariable Calculus	MATH 137 with C or better	none
MATH 331 Differential Equations	MATH 137	none
STAT 301 Probability and Applied Statistics	MATH 136 or 142 with C or better	none
CHEM 120/121 College Chemistry I and Lab	Chemistry placement exam or CHEM 116 with C or better	MATH 117
GEOL 111/113 The Earth and Lab		none
AMS 163 Architectural Drafting	High school algebra and trigonometry	none

Caution when registering for courses with prerequisites:

Students must meet all prerequisites and corequisites to take a course unless special permission is given by the instructor. Students need to be aware of all prerequisites, for example:

- A student may earn a "D" in EM 303 in the fourth semester. In the fifth semester, the student will be permitted to register and take: CE 382 Structural Analysis, CE 370/371 Materials of Construction and Lab, and CE 410/411 Soil Mechanics and Lab provided all other prerequisites and corequisites are met. However, prior to graduation, the student will need to repeat EM 303 and earn a grade of "C" or better.

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