

CE ELECTIVES

- Pick at least one CE AREA Introductory course (**I**) in five different areas for a total of five (5) courses.
- Pick an additional seven (7) courses, at least one of which must be a Capstone Design Course (**C**).
At least one course must be an additional design course (**D**) in an area different from that of the capstone.
- Pick at least three (3) CE laboratory experiences (**L**)

	Hrs	Sem	Pre and Co-Requisites
Coastal Engineering and Water Resources			
L CE 381 Hydraulics Sys. Meas. Lab	1	F/S	CoReq. CE 382
I D CE 383 Hydrology & Urban Water Systems	1	F/S	C- or better in CE 382
I CE 487 Intro. To Coastal and Ocean Engineering	3	S	Senior standing and CE 382
D CE 488 Water Resources Engineering	3	F	CE 339 or equivalent; CoReq. CE 383
C D CE 480 Water Resources Engineering Project	3	F	CE 390, C- or better in CE 382 and CE 383
Computing and Systems			
I CE 337 Civil Engineering Computing	3	S	CSC 112, CoReq. MA 341 or MA 305
I *CE 339 Civil Engineering Systems	3	F	CSC 112, CoReq. MA 341 or MA 305
Construction Engineering and Management			
*CE 261 Construction Engineering Systems	3	S	CEM Majors; CoReq. ST 370
I D CE 367 Mech. and Elec. Systems in Buildings	3	S	CE 382
I CE 463 Construction Estimating Plan. And Control	3	F	CE 261 (Priority to CEM)
1 D CE 466 Building Construction Engineering	3	F	CoReq. CE 327 (Priority to CEM)
Environmental			
I CE 373 Fundamentals of Environmental Engineering	3	F/S	CoReq. CHE 205 or CE 382
CE 479 Air Quality	3	S	CE 373, CE 382; CoReq. ST 370
D CE 476 Air Pollution Control	3	F	CE 373, CE 390, MAE 301; CoReq. ST 370
D CE 477 Principles of Solid Waste Engineering	3	S	CE 373, CE 390, CE 382; CoReq. CE 342
D CE 484 Water Supply and Waste Water Systems	3	F	CE 373, CE 382
Geotechnical			
I L CE 342 Engineering Behavior of Soils & Foundations	4	F/S	C- or better in CE 313; CoReq. CE 382
CE 435 Engineering Geology	3	Alt S	MEA 101 and Junior standing
D CE 443 Seepage, Earth Embank., and Retain. Str.	3	Alt S	CE 390, C- or better in CE 342
C D CE 440 Geotech. Engineering Project (Foundations)	3	F	CE 390, C- or better in CE 342
Structural			
L CE 324 Structural Behavior Meas.	1	F/S	C- or better in CE 313
I D CE 327 Reinforced Concrete Design	3	F/S	CE 332, C- or better in CE 313
CE 325 Structural Analysis	3	F/S	CSC 112, C- or better in CE 313
CE 425 Introduction to Matrix Structural Analysis	3	F/S	C- or better in CE 325
I D CE 426 Structural Steel Design	3	F/S	C- or better in CE 313
C D CE 420 Structural Engineering Project (Buildings)	3	S	CE 327, CE 390, CE 426, CoReq. CE 425
C D CE 421 Structural Engineering Project (Bridges)	3	F	CE 327, CE 390, CE 426, CoReq. CE 425
Transportation			
I D CE 305 Traffic Engineering	3	F/S	CE or CEM Majors, ST 370
CE 401 Transportation Systems Engineering	3	F	C- or better in CE 305
D CE 402 Traffic Operations	3	F	C- or better in CE 305
D CE 403 Highway Design	3	S	C- or better in CE 305
D CE 413 Principles of Pavement Design	3	F	CE 332; CoReq. CE 342
C D CE 400 Transportation Engineering Project	3	S	CE 390, C- or better in CE 305; and one of the following: CE 401, CE 402, CE 403 or CE 413
Other Civil Engineering Courses			
CE 215 Engineering Mechanics-Dynamics	3	F/S	Minimum GPA \geq 2.5, Grade of C- or better in CE 214 and MA 242
I L CE 332 Materials of Construction	3	F/S	MSE 200, Jr. standing in CE or CEM
L CE 301 Civil Engineering Measurements & Surveys	3	F/S	CEM, CE or ENE majors (Priority to CEM)

*Credit for Both CE 261 and CE 339 is not allowed.

- Notes: 1. Due to departmental constraints, not every course may be taught in every semester suggested in the table above. Students should check with the online course schedule for courses to be taught in the upcoming semester.
2. Undergraduates with a major GPA >2.5 and appropriate prerequisites may elect 500-level courses to satisfy their CE electives.