

CIVIL ENGINEERING**PREREQUISITE SUMMARY**

Note: BSCE = admitted into upper division / CE enrolled = CE is your major

UNDERGRADUATE COURSES	PREREQUISITES
CE 1000 History of Structures	None
CE 1025 Introduction to Civil Engineering	CE enrolled
CE 2017 Engineering Mechanics	Math 1297, Phys 2011 or Phys 2013 & 2014
CE 2020 Computational Tools for Civil Engineers	CE 1025, Phys 2013, Math 1297
CE 3015 CAD & Engineering Drawing	CE 2017
CE 3016 Surveying	Math 1297
CE 3025 Environmental Engineering	Chem 1151 or 1153 and 1154, CE 3221, BSCE
CE 3026 Project Management	None
CE 3027 Infrastructure Materials	CE 2017, BSCE
CE 3115 Structural Analysis	CE 2017, Math 3280 (conc.), BSCE
CE 3221 Fluid Mechanics	CE 2017, Math 3280 (conc.)
CE 3225 Hydraulics and Hydrology	CE 3221, Math 3280 (conc.), BSCE
CE 3316 Transportation Engineering	BSCE
CE 3426 Soil Mechanics	CE 2017, BSCE
CE 4096 Cooperative Education I	BSCE, instructor consent
CE 4100 Applications of Management in Resilient Precast Concrete	CE 4126, BUS 2400 (conc.)
CE 4115 Design of Steel Structures	CE 3115, BSCE
CE 4126 Design of Concrete Structures	CE 3115, BSCE
CE 4128 Prestressed Concrete Structures	CE 4126
CE 4135 Advanced Reinforced Concrete and Steel Design	CE 3115, CE 4115, CE 4126
CE 4136 Structural Systems	CE 4115, CE 4126,
CE 4137 Advanced Structural Analysis and Design	CE 4126, CE 4115, BSCE
CE 4213 Open Channel Hydraulics	CE 3225 or instructor consent
CE 4215 Hydraulic Design	CE 3225
CE 4228 Watershed Engineering	CE 3225 or instructor consent
CE 4237 Water Quality Engineering	CE 3025 or instructor consent
CE 4246 Environmental Remediation Technologies	CE 3025 or instructor consent
CE 4255 Senior Design	Instructor consent
CE 4256 Design of Water & Waste Water Treatment Plants	CE 3025 or instructor consent
CE 4257 Municipal Solid Waste Management & Hazardous Waste Systems	CE 3025 or instructor consent
CE 4315 Design of Traffic Control Systems	CE 3316
CE 4316 Pavement Analysis and Design	CE 2017, CE 3027, CE 3316

CE 4318 Pavement Maintenance, Rehabilitation, & Management	CE 3027, CE 3316, or instructor consent
CE 4326 Highway Planning and Design	CE 3316
CE 4415 Geotechnical Design	CE 3426
CE 4422 Numerical Modeling in Geotechnical Engineering	CE 3426
CE 4426 Rock Mechanics	CE 3426
CE 4515 Sustainable Design	BSCE, BSCE, BSIE, or BSME and instructor consent
CE 4596 Cooperative Education II	BSCE, instructor consent
CE 4991 Independent Study in Civil Engineering	BSCE, instructor const.
CE 4995 Special Topics in Civil Engineering	(as noted for given course)

GRADUATE COURSES	PREREQUISITES
CE 5027 Advanced Infrastructure Materials	Grad student or instructor consent
CE 5115 Structural Dynamics	CE 3115 or grad student
CE 5127 Bridge Analysis and Design	CE 4115 and CE 4126 or grad student
CE 5128 Prestressed Concrete Structures	CE 4126 or grad student
CE 5131 Design of Wood & Masonry Structures	CE 3115, CE 4126, or grad student
CE 5135 Advanced Reinforced Concrete and Steel Design	CE 3115, CE 4115, CE 4126
CE 5137 Advanced Structural Analysis and Design	CE 4115, CE 4126, or grad student
CE 5201 Water Policy	Grad student or instructor consent
CE 5203 Stream Crossing and Culvert Design	CE 3225 or grad student; instructor consent
CE 5216 Applications in Environmental Modeling	Grad student or instructor consent
CE 5226 Water Resource Engineering	CE 3225, grad student
CE 5237 Water Quality Engineering	CE 3025, CHE 2001, or grad student
CE 5241 Water Chemistry	CE 3025, CHEM 1155, grad student, or instructor consent
CE 5246 Environmental Remediation Technologies	CE, WRS, IBS grad student, or instructor consent
CE 5251 Design of Chemical Physical Unit Operations in Water Treatment	CE 4256 or instructor consent
CE 5315 Design of Traffic Systems	CE 3316 or grad student
CE 5316 Pavement Analysis and Design	CE 3027, CE 3316, or grad student
CE 5317 Traffic Flow Theory and Modeling	CE 4315 or grad student
CE 5318 Pavement Maintenance, Rehabilitation, & Management	CE 3027, CE 3316, or grad student
CE 5326 Highway Planning and Design	CE 3316 or grad student
CE 5420 Advanced Soil Mechanics	CE 3426, CE 4415 (conc.), or grad student
CE 5421 Applied Geostatistics	MATH 1297 or STAT 2411 or STAT 3411 or grad student
CE 5422 Numerical Modeling in Geotechnical Engineering	CE 3426, grad student, or instructor consent

CE 5426 Rock Mechanics	CE 3426 or grad student
CE 5515 Sustainable Design and Construction	BSCE, BSCHE, BSIE, BSME; or grad student & instructor consent
CE 5525 Decision, Risk and Reliability	STAT 3411, grad student, or instructor consent
CE 5555 Project Credits: Master of Engineering (Civil)	Grad student
CE 5991 Graduate Independent Study in Civil Engineering	Grad student & instructor consent
CE 5995 Special Topics in CE	(as noted for given course), grad student
CE 8020 Graduate Seminar	Grad student (MS Plan A and B)
CE 8094 Civil Engineering Master's Project Credits	Grad student (MS Plan B)
CE 8333 FTE: Master's	Grad student, advisor & DGS consent
CE 8777 Thesis Credits: Master's	Grad student (MS Plan A)