

Construction Engineering Technical Electives

Catalog Year Fall 2024 Forward

Column 1: Course Name	Column 2: Course Number	Column 3: Course Name	Column 4: Course Number
Geotech II (3)	CEG 4012	Entrepreneurship for Defense (3)	EGN 4630
Geotech Methods (3)*	CEG 4203	Fund of Mech Behavior Materials (3)*	EMA 4223
Geotech Design (3)*	CEG 4801C	HVAC Systems Engineering (3)*	EML 4600
Structural Mechanics (3)	CES 4205	Applied HVAC Engineering (3)	EML 4602
Steel Structures (3)	CES 4605	Advanced Calculus I (4)*	MAA 4226
Concrete Structures (3)	CES 4702	Introduction Complex Variables (3)*	MAA 4402
Structural Design (3)	CES 4743C	Introduction to Graph Theory (3)*	MAD 4301
Forensic Investigation for Eng (3)*	CGN 4120	Management of Organizations (3)^	MAN 3025
Intro to Smart Cities (3)	CGN 4309	Mathematical Modeling I (3)*	MAP 4103
Hydrology (3)	CWR 4120	Prob, Random Proc & Appl (3)*	MAP 4113
Hydrogeology (3)	CWR 4124	Vector and Tensor Analysis (3)*	MAP 4153
Water Resources Design (3)	CWR 4812C	Optimization (3)*	MAP 4171
Biological Process Control (4)	EES 4111C	Ordinary Differential Equations II (3)*	MAP 4303
Chemical Process Control (4)	EES 4202C	Intro to Partial Dif Eq (3)*	MAP 4341
Air Poll & Haz Waste Control (3)	ENV 4120	Intro to Partial Dif Eq II (3)*	MAP 4342
Air Pollution Design (3)*	ENV 4122C	Numerical Methods for Dif Eq (3)*	MAP 4371
Sustainable Res Mgmt (3)	ENV 4341	Numerical Methods for Comp Sci (3)*	MAP 4384
Wastewater Design (3)*	ENV 4433C	Matrix and Linear Algebra (4)	MAS 3105
Env Eng Ops & Processes (3)	ENV 4531	Linear Algebra (4)*	MAS 3106
Adv Eng Ops & Processes (3)*	ENV 4561	Intro to Number Theory (3)	MAS 3203
Water Treatment Design (3)*	ENV 4562C	Logic and Proof in Mathematics (3)	MHF 3302
Highway Engineering (3)	TTE 3810	Urban and Regional Planning (3)	PAD 3330
Transp Engrg Systems (3)	TTE 4274	Public Sector Project Mgmt (3)	PAD 4131
Transp Analytics (3)	TTE 4300	Land Use and Planning (3)	PAD 4331

Urban Systems Design (3)	TTE 4601C		
Intro to Programming with C (3)*	COP *223	*Additional prerequisites required	
Engineering Analysis - Dynamics (3)	EGN 3321		
Thermodynamics (3)	EGN 3343	^MAN courses require an override from the College of Business	
Principles of Electrical Engineering (3)	EGN 3373		

%CCE courses cannot be used as technical or depth electives for Civil/Construction double degree

CECE 5000 level courses (by override only) (min GPA req'd)*

CCE 5006, CCE 5205, CCE 5220, CEG 5405, CES 5144, CES 5325, CES 5606, CES 5706, CES 5821, CGN 5340, CGN 5341, CGN 5506, CGN 5617, CGN 5877, CWR 5125, CWR 5205, CWR 5515, CWR 5545, CWR 5634, CWR 5999, EES 5318, ENV 5410, ENV 5505, ENV 5517, ENV 5636, TTE 5204, TTE 5531, TTE 5805, TTE 5835