

MAJOR IN CONSTRUCTION ENGINEERING

Requirements Effective Fall 2026

Freshman

		AUCC	Credits
CHEM 111	General Chemistry I (GT-SC2)	3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	1
CO 150	College Composition (GT-CO2)	1A	3
ENGR 111	Fundamentals of Engineering		3
ENGR 114	Engineering for Grand Challenges		3
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	4
MATH 161	Calculus for Physical Scientists II (GT-MA1)	1B	4
PH 141	Physics for Scientists and Engineers I (GT-SC1)	3A	5
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			3
Total Credits			30

Sophomore

CIVE 260	Engineering Mechanics-Statics		3
CIVE 261	Engineering Mechanics-Dynamics		2
CIVE 360	Mechanics of Solids		3
CON 101	Introduction to Construction Management		3
CONE 103	Virtual Design and Construction I		3
CONE 201	Construction Systems and Decision Analysis		3
CONE 203	Virtual Design and Construction II		3
GEOL 120	Geology and Society (GT-SC2)	3A	3
MATH 261	Calculus for Physical Scientists III		4
MATH 340	Intro to Ordinary Differential Equations		4
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			3
Total Credits			34

Junior

CIVE 300	Fluid Mechanics		3
CIVE 302	Evaluation of Civil Engineering Materials		2
CIVE 303	Infrastructure and Transportation Systems		3
CIVE 367	Structural Analysis		3
CONE 301	Engineering Contracts		1
CONE 302	Preconstruction and Project Control Systems		5
CONE 401	Construction Safety Engineering		3
CONE 404	Production Planning of Construction Operation		3
CONE 487	Construction Engineering Internship		1
Design Focus Area Electives (select one course from one Focus Area):			3
Heavy Civil/Infrastructure:			
CIVE 401	Hydraulic Engineering		
CIVE 466	Design and Behavior of Steel Structures		
CIVE 467	Design of Reinforced Concrete Structures		

Structures/Buildings:

CIVE 466	Design and Behavior of Steel Structures
CIVE 467	Design of Reinforced Concrete Structures
CONE 405	Virtual Design and Construction III

Water/Environmental Facilities:

CIVE 322	Basic Hydrology
CIVE 330	Ecological Engineering
CIVE 401	Hydraulic Engineering
CIVE 405	Sustainable Civil/Environmental Engineering
CIVE 423	Groundwater Engineering
CIVE 437	Wastewater Treatment Facility Design
CIVE 438	Fundamentals of Environmental Engr
CIVE 440	Nonpoint Source Pollution
CIVE 441	Water Quality Analysis and Treatment
CONE 410	Environmental Systems in Construction
CIVE 450	Geotechnical Engineering II

Historical Perspectives (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)	3D	3
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Total Credits**30****Senior**

CIVE 355	Geotechnical Engineering I		3
CIVE 356	Geotechnical Engineering Laboratory		1
CONE 402	Senior Project Design I	4A,4B	3
CONE 403	Senior Project Design II	4A,4C	3
Design Focus Area Electives (select two courses not previously taken from the same Focus Area as Junior year above):			6

Heavy/Civil Infrastructure:

CIVE 401	Hydraulic Engineering
CIVE 466	Design and Behavior of Steel Structures
CIVE 467	Design of Reinforced Concrete Structures

Structures/Buildings:

CIVE 466	Design and Behavior of Steel Structures
CIVE 467	Design of Reinforced Concrete Structures
CONE 405	Virtual Design and Construction III

Water/Environmental Facilities:

CIVE 322	Basic Hydrology
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1C (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#aucc)	1C	3
Advanced Writing (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#advanced-writing)	2	3
Social and Behavioral Sciences (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences)	3C	3

Electives ¹	6
Total Credits	31
Program Total Credits:	125

¹ Select enough elective credits to bring the program total to a minimum of 125 credits, of which at least 42 credits must be upper-division (300-level or higher).