# MAJOR IN CONSTRUCTION ENGINEERING

CSU recognizes the industry's interest in developing a workforce pipeline of qualified construction engineers ready to make an immediate impact across the nation. CSU delivers a comprehensive ABET-accredited Construction Engineering program with robust course offerings that focus on the excellence required to make this program unique and exceptional.

The program achieves industry expectations and anticipated future needs by including focus areas aligned with strengths of CSU faculty experts: Heavy Civil/Infrastructure, Structures/Buildings, and Water/Environmental Facilities. The Construction Engineering degree also includes industry-informed curriculum in virtual design and construction and construction safety engineering.

The program includes an engaged industry advisory board with an active commitment to ensure the success of the program and students, and Enrichment Programming with Industry and Peer Mentorship.

### **Learning Objectives and Outcomes**

The Major in Construction Engineering program strives to provide students with the knowledge, training, and opportunity to achieve the primary educational objective of rewarding careers in construction or related fields, in addition to the expectation that these students, within five years of graduation, will:

- Be successfully employed in engineering, science, technology, or related careers;
- 2. Assume management or leadership roles;

- Engage in continual learning by pursuing advanced degrees or additional educational opportunities through coursework, professional conferences and training, and/or participation in professional societies;
- Pursue professional registration or other appropriate certifications; and
- 5. Be active in civic engagement.

The outcomes that students are expected to have attained upon graduation with a B.S. in Construction Engineering are the ability to:

- 1. Apply knowledge of mathematics, science, and engineering;
- 2. Design and conduct experiments;
- 3. Analyze and interpret data;
- Design a sustainable system or component to meet desired performance specifications;
- 5. Identify, formulate and solve engineering problems;
- Communicate and demonstrate professional and ethical responsibilities;
- 7. Communicate effectively through writing and drawing;
- 8. Communicate effectively through oral presentations;
- 9. Explain the impact of engineering on society;
- 10. Engage in life-long learning;
- 11. Explain contemporary issues in civil, environmental and architectural engineering;
- 12. Use modern construction engineering tools, skills; and
- Explain basic concepts in management, business, public policy and leadership.

## Requirements Effective Fall 2025

Freshman			
		AUCC	Credits
CHEM 111	General Chemistry I (GT-SC2)	3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	1
CIVE 260	Engineering Mechanics-Statics		3
CO 150	College Composition (GT-CO2)	1A	3
CON 101	Introduction to Construction Management		3
CONE 103			3
CONE 192			1
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
	Total Credits		31
Sophomore			
CIVE 261	Engineering Mechanics-Dynamics		3
CIVE 303	Infrastructure and Transportation Systems		3
CIVE 360	Mechanics of Solids		3
CIVE 367	Structural Analysis		3
CONE 201	Construction Systems and Decision Analysis		3
CONE 203			3
GEOL 150	Dynamic Earth (GT-SC2)	3A	4

#### Major in Construction Engineering

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MATH 261	Calculus for Physical Scientists III		4
MECH 237	Introduction to Thermal Sciences		3
Arts and Humanities #arts-humanities)	(http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/	/ 3B	3
	Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core- versity-equity-inclusion)	1C	3
	Total Credits		35
Junior			
CIVE 300	Fluid Mechanics		3
CIVE 302	Evaluation of Civil Engineering Materials		3
CIVE 355	Geotechnical Engineering		3
CIVE 356	Geotechnical Engineering Laboratory		1
CONE 301			1
CONE 302			5
CONE 401			3
CONE 404			3
CONE 487			1
MATH 340	Intro to Ordinary Differential Equations		4
Design Focus Area El	ectives (select one Focus Area):		6
Heavy Civil/Infrastruc			
CIVE 467	Design of Reinforced Concrete Structures		
And select one cou	urse from the following:		
CIVE 401	Hydraulic Engineering		
CIVE 423	Groundwater Engineering		
CIVE 455	Applications in Geotechnical Engineering		
CIVE 466	Design and Behavior of Steel Structures		
Structures/Buildings:			
CIVE 466	Design and Behavior of Steel Structures		
CIVE 467	Design of Reinforced Concrete Structures		
Water/Environmental			
CIVE 401	Hydraulic Engineering		
CONE 410	Trydraulic Englicering		
OONL 410	Total Credits		33
Senior	Total Greats		33
-			
CIVE 322	Basic Hydrology		3
CONE 402	,	4A,4B	3
CONE 403		4A,4C	3
	ectives (select the same Focus Area as Junior year above):	, -	3
=	cture - select one course from the following not previously taken:		
CIVE 401	Hydraulic Engineering		
CIVE 423	Groundwater Engineering		
CIVE 455	Applications in Geotechnical Engineering		
CIVE 466	Design and Behavior of Steel Structures		
	- select one course from the following:		
CIVE 455			
CIVE 455 CONE 405	Applications in Geotechnical Engineering		
	Englished, polant and course from the following:		
	Facilities - select one course from the following:		
CIVE 330	Ecological Engineering		
CIVE 405	Sustainable Civil/Environmental Engineering		
CIVE 423	Groundwater Engineering		

	Program Total Credits:		126
	Total Credits		27
Social and Behavioral Scie curriculum/aucc/#social-b	nces (http://catalog.colostate.edu/general-catalog/all-university-core- ehavioral-sciences)	3C	3
Historical Perspectives (ht aucc/#historical-perspecti	tp://catalog.colostate.edu/general-catalog/all-university-core-curriculum/ ves)	3D	3
Arts and Humanities (http: #arts-humanities)	//catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/	3B	3
Advanced Writing (http://c #advanced-writing)	atalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/	2	3
Technical Electives (see lis	t below)		3
CIVE 458	Environmental Geotechnics		
CIVE 441	Water Quality Analysis and Treatment		
CIVE 440	Nonpoint Source Pollution		
CIVE 437	Wastewater Treatment Facility Design		

#### **Technical Electives** CIVE 533/BIOM 533 Biomolecular Tools for Engineers 3 **CIVE 538** Aqueous Chemistry 3 Code **Credits** 3 CIVE 540/CBE 540 Advanced Biological Wastewater BC 351 Principles of Biochemistry 4 Processing 4 **CHEM 245** Fundamentals of Organic Chemistry **CIVE 541 Physical Chemical Water Treatment** 3 3 **CHEM 341** Modern Organic Chemistry I Processes 3 CIVE 305 Intermediate AutoCAD **CIVE 542** 3 Water Quality Modeling 3 **CIVE 330 Ecological Engineering** Water Resources Planning and **CIVE 544** 3 **CIVE 405** Sustainable Civil/Environmental 3 Management Engineering CIVE 547/STAT 547 Statistics for Environmental Monitoring 3 **CIVE 413** 3 **Environmental River Mechanics CIVE 549** Drainage and Wetland Engineering 3 **CIVE 423 Groundwater Engineering** 3 3 **CIVE 550** Foundation and Retaining Wall Engineering 3 **CIVE 437** Wastewater Treatment Facility Design **CIVE 555** Mining Geotechnics 3 **CIVE 439** Applications of Environmental Engr 3 3 **CIVE 556** Slope Stability, Seepage, and Earth Dams Concepts 3 **CIVE 558** Containment Systems for Waste Disposal **CIVE 440** Nonpoint Source Pollution 3 3 **CIVE 559** Special Topics in Geotechnical Engineering 3 **CIVE 442** Air Quality Engineering **CIVE 560** Advanced Mechanics of Materials 3 **CIVE 455** 3 Applications in Geotechnical Engineering 3 **CIVE 561** Advanced Steel Behavior and Design **CIVE 458 Environmental Geotechnics** 3 Fundamentals of Vibrations 3 **CIVE 562 CIVE 502** Fluid Mechanics 3 3 **CIVE 565** Finite Element Method 3 **CIVE 505** Structural Inspection, Management and **CIVE 566** Intermediate Structural Analysis 3 Repair 3 **CIVE 567** Advanced Concrete Design **CIVE 507** Transportation Engineering 3 **CIVE 568** Design of Masonry and Wood Structures 3 3 **CIVE 508 Bridge Engineering** 3 **CIVE 571** Pipeline Engineering and Hydraulics **CIVE 510** Applied Hydraulic System Design 3 **CIVE 572** Analysis of Urban Water Systems 3 3 **CIVE 511 Coastal Engineering** 3 **CIVE 573 Urban Stormwater Management** 3 **CIVE 512** Irrigation Systems Design **CIVE 574** Civil Engineering Project Management 3 3 **CIVE 513** Morphodynamic Modeling 3 **CIVE 575** Sustainable Water and Waste Management **CIVE 514** Hydraulic Structures/Systems 3 3 **CIVE 576** Engineering Applications of GIS and GPS 3 **CIVE 519** Irrigation Water Management 3 **CIVE 578** Infrastructure and Utility Management **CIVE 520** Physical Hydrology 3 3 CON 370 Asphalt Pavement Materials and 3 **CIVE 521** Hydrometry Construction CIVE 524/WR 524 Modeling Watershed Hydrology 3 3 ENGR 550/ Numerical Methods in Science and 3 **CIVE 525** Water Engineering International **MATH 550** Engineering Development 3 **ERHS 446 Environmental Toxicology** 3 **CIVE 529 Environmental Organic Chemistry** FIN 305 Fundamentals of Finance 3 **CIVE 530** 3 Environ Engr at the Water-Energy-Health **GEOL 442 Applied Geophysics** 4 Nexus GR 323/NR 323 Remote Sensing and Image Interpretation 3 **CIVE 531 Groundwater Hydrology**

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**Total Credits** 

LIFE 320	Ecology	3
MATH 332	Partial Differential Equations	3
MATH 369	Linear Algebra I	3
MGT 305	Fundamentals of Management	3
MIP 300	General Microbiology	3
MKT 305	Fundamentals of Marketing	3
NR 319	Introduction to Geospatial Science	4

### **Major Completion Map**

Distinctive Requirements for Degree Program:

**TO PREPARE FOR FIRST SEMESTER**: The curriculum for this major assumes students enter college prepared to take calculus.

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FreeIman         Critical         Recommended         AUCC         Credita           CO 150         College Composition (GFCO2)         X         1A         3           CO N 101         Introduction to Construction Management         X         ————————————————————————————————————						
CO 150         College Composition (GFCO2)         X         1A         3           CON 101         Introduction to Construction Management         X          3           CONE 192         X         X          13           MATH 160         Calculus for Physical Scientists I (GFMAI)         X         1B         4           PH 141         Physics for Scientists and Engineers I (GFSCI)         X         3A         5           Total Credits         Total Credits         Recommended         MUCC         Credits           CHEM 112         General Chemistry I (GFSCI)         X         3A         4         4           CHEM 112         General Chemistry Lab I (GFSCI)         X         3A         1         3           CONE 206         Engineering Mechanics-Statics         X         1B         4         4           CVE 250         Engineering Mechanics-Statics         X         1B         4         4           CVE 250         Engineering Mechanics-Statics II (GF-MAI)         X         1B         4         4           CVE 250         Mechanics of Solids         X         Recommended         AUCC         Credits			October 1	D	41100	O lite
CON 101         Introduction to Construction Management         X		O-Harra Communication (OT CCC)		Recommended		
CONE 192         X         1         AMTH 160         Calculus for Physical Scientists I (GT-MA1)         X         1B         4           MATH 160         Physics for Scientists and Engineers I (GT-SC1)         X         3A         5           Total Credits         Critical         Recommended         AUCC         Credits           Semester 2         Critical         Recommended         AUCC         Credits           CHEM 111         General Chemistry I (GT-SC2)         X         3A         4           CHEM 112         General Chemistry Lab I (GT-SC1)         X         3A         4           CHE 200         Engineering Mechanics-Statics         X         3A         4           CNE 201         Calculus for Physical Scientists II (GT-MA1)         X         1B         4           Sphomore         Total Credits         Recommended         AUCC         Credits           CNE 201         Construction Systems and Decision Analysis         X         3A         4           CVE 360         Mechanics of Solids         X         3A         4           CNE 201         Construction Systems and Decision Analysis         X         3A         4           GCNE 201         Construction Systems					IA	
MATH 160         Calculus for Physical Scientists I (GFMA1)         X         1B         4           PH 141         Physics for Scientists and Engineers I (GF-SC1)         X         3A         5           Total Credits         Critical         Recommended         AUCC         Credits           Semester 2         General Chemistry I (GF-SC2)         X         3A         4           CHEM 112         General Chemistry Lab I (GF-SC1)         X         3A         4           CHEM 112         General Chemistry Lab I (GF-SC1)         X         3A         4           CWE 260         Engineering Mechanics-Statics         X         3B         3           CONE 103         Total Credits         X         1B         4           AMTH 161         Calculus for Physical Scientists II (GF-MA1)         X         1B         4           CNE 201         Total Credits         X         Becommended         AUCC         Credits           CNE 201         Calculus for Physical Scientists III         X         3A         4           CNE 201         Construction Systems and Decision Analysis         X         3A         4           CNE 201         Construction Systems and Decision Analysis         X         3A		introduction to Construction Management				
PH 1411         Physics for Scientists and Engineers I (GTSC1)         X         3A         16           Remester 2         Oritical of General Chemistry L GTSC2)         X         3A         Credits           CHEM 111         General Chemistry Lab I (GTSC1)         X         3A         18           CHEM 112         General Chemistry Lab I (GTSC1)         X         3A         1           CIVE 260         Engineering Mechanics-Statics         X         3A         3A           CONE 103         Local Credits         X         3B         4A           Segmenter 3         Calculus for Physical Scientists II (GT-MA1)         X         1B         4A           Sophomore         V         BR         4B         4A           Segmester 3         Critical         Recommended         AUC         Credits           CONE 201         Construction Systems and Decision Analysis         X         4C         4         4           CONE 201         Construction Systems and Decision Analysis         X         3A         4         4           CONE 201         Construction Systems and Decision Analysis         X         3A         4         4           Construction Systems and		Calculus for Physical Calcutists I (CTMA1)			10	
Total Credits						
Semester 2         Critical         Recommended         AUCC         Credital           CHEM 111         General Chemistry Light (GT-SC2)         X         3A         4           CHEM 112         General Chemistry Lab I (GT-SC1)         X         3A         1           CHEM 112         Engineering Mechanics-Statics         X         -         -         3B           CNIC 103         Total Credits         X         1B         4           Sophomore           Sophomore           Semester 3         Critical         Recommended         AUCC         Credits           CONE 2010         Mechanics of Solids         X         - <td< td=""><td>PH 141</td><td></td><td>^</td><td></td><td>3A</td><td></td></td<>	PH 141		^		3A	
CHEM 1111         General Chemistry Lab I (GTSC2)         X         3A         4           CHEM 112         General Chemistry Lab I (GTSC1)         X         3A         1           CIVE 260         Engineering Mechanics-Statics         X         3         3           CONE 103         X         1B         4           Total Credits         Total Credits         Total Credits         Total Credits         Recommended         AUC         Credits           Sophomore         Semester 3         Critical         Recommended         AUC         Credits           CIVE 360         Mechanics of Solids         X         3A         44           CONE 201         Construction Systems and Decision Analysis         X         3A         44           CONE 201         Construction Systems and Decision Analysis         X         3A         44           MATH 261         Calculus for Physical Scientists III         X         3A         44           MATH 261         Calculus for Physical Scientists III         X         3C         4           Scanserius Foliumity, Equity, Equity, Equity, Equity, Equity,	C	Total Credits	Ouitical	Danamanadad	41100	
CHEM 112         General Chemistry Lab I (GT-SC1)         X         3A         1           CIVE 260         Engineering Mechanics-Statics         X         3         3           CONE 103         X         1B         4           MATH 161         Calculus for Physical Scientists II (GT-MA1)         X         1B         4           Sophomore         Semester 3         Critical         Recommended         AUCC         Credits           CIVE 360         Mechanics of Solids         X         G         3           CONE 201         Construction Systems and Decision Analysis         X         3A         4           GEOL 150         Dynamic Earth (GT-SC2)         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         3C         2           Semester 4		Conoral Chemistry I (CT SC2)		Recommended		
CVNE 260         Engineering Mechanics-Statics         X         3           CONE 103         X         1B         4           MATH 161         Calculus for Physical Scientists II (GFMA1)         X         1B         4           Total Credits         Total Credits           Sophomore         Semester 3         Critical         Recommended         AUCC         Credits           CIVE 360         Mechanics of Solids         X         3A         3           GONE 201         Construction Systems and Decision Analysis         X         3A         4           GONE 201         Construction Systems and Decision Analysis         X         3A         4           GONE 201         Construction Systems and Decision Analysis         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         3A         4           MEDL 150         Dynamic Earth (GT-SC2)         X         3A         4           All-User 261         Calculus for Physical Scientists III         X         3A         4           Bernstity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-catalog.colostate.edu/general-catalog/all-catalog.colostate.edu/general-catalog/all-catalog.colostate.edu/general-catalog/al	*=					
CONE 103         X         1B         4           MATH 161         Calculus for Physical Scientists II (GT-MA1)         X         1B         4           Sophomore         Critical         Recommended         AUCC         Credits           Sophomore         Critical         Recommended         AUCC         Credits           CIVE 360         Mechanics of Solids         X         3         3         3           CONE 201         Construction Systems and Decision Analysis         X         3A         4           GEOL 150         Dynamic Earth (GT-SC2)         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         3A         4           MATH 261         Engineering Mechanics-Dynamics         X         4         4         4           Semester Sciences Sciences Sciences Sciences X         X					3A	•
MATH 161         Calculus for Physical Scientists II (GT-MA1)         X         1B         4           Total Credits         Total Credits         Total Credits         Total Credits         18         4         Credits         Recommende AUCC         Credits         Critical Recommende AUCC         AUCC         Credits         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         3A         4A           MATH 261         Calculus for Physical Scientists III         X         1C         3           Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-court-curriculum/aucc/#diversity-equity-inclusion)         1C         3           Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-court-curriculum/aucc/#diversity-equity-inclusion)         X         4C         Credits           Semester 4         Egineering Mechanics-Dynamics         X         4C         Credits           CIVE 2610         Engineering Mechanics-Dynamics         X         4         4           CIVE 367         Introduction to Thermal Sciences         X         4         3           CIVE 367 <t< td=""><td></td><td>Engineering Mechanics-Statics</td><td></td><td></td><td></td><td></td></t<>		Engineering Mechanics-Statics				
Total Credits         Total Credits           Sophomore         Critical         Recommended         AUCC         Credits           CIVE 360         Mechanics of Solids         X         3         3           GONE 201         Construction Systems and Decision Analysis         X         3A         4           GEOL 150         Dynamic Earth (GT-SC2)         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         1C         3           Mind Math 261         Calculus for Physical Scientists III         X         1C         3           MED Introduction (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion)         1C         3           Semester 4         Critical         Recommended         AUCC         Credits           CIVE 261         Engineering Mechanics-Dynamics         X         3         3         3           CIVE 261         Engineering Mechanics-Dynamics         X         3         3         3         3           CIVE 261         Engineering Mechanics-Dynamics         X         3         3         3         3         3         3         3         3         3         3         3		Calculus for Physical Scientists II (CTMA1)			10	
Sephomore         Critical         Recommended         AUCC         Credits           SCIVE 360         Mechanics of Solids         X         3         3           CONE 201         Construction Systems and Decision Analysis         X         3A         4           GEOL 150         Dynamic Earth (GT-SC2)         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         1C         3           All MATH 261         Calculus for Physical Scientists III         X         1C         3           All MATH 261         Calculus for Physical Scientists III         X         1C         3           All MATH 261         Calculus for Physical Scientists III         X         1C         3           All MATH 261         Calculus for Physical Scientists III         X         1C         3           All Math 261         Included Wiresity-Catalog.colostate.edu/general-catalogy.         T         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         3         3         4         4         3         3         4         4	MATHIOI		X			
Semester 3         Critical         Recommended         AUCC         Credits           CIVE 360         Mechanics of Solids         X	Cambamana	Total Credits				15
CIVE 360         Mechanics of Solids         X         3           CONE 201         Construction Systems and Decision Analysis         X         3A         4           GEOL 150         Dynamic Earth (GT-SC2)         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         1C         3           Authority, Cautive, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-corr-curriculum/aucc/#diversity-equity-inclusion)         X         1C         3           Semester 4         Crital Credits         Recommended         AUCC         Credits           CIVE 261         Engineering Mechanics-Dynamics         X         4         4         3           CIVE 261         Engineering Mechanics-Dynamics         X         4         4         3           CIVE 303         Infrastructure and Transportation Systems         X         4         4         3           CIVE 367         Structural Analysis         X         3         3         3           CIVE 367         Introduction to Thermal Sciences         X         3         3         3           Arts and Humarities (http://catalog.colostate.edu/general-catalog/all-university-corre-turiculum/aucc/#	•		Critical	Decemmended	ALICO	Cradita
CONE 201         Construction Systems and Decision Analysis         X         3           GEOL 150         Dynamic Earth (GT-SC2)         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         1C         3           All-university-core-curriculum/aucc/#diversity-equity-inclusion)         1C         3           Total Credits         1T         Total Credits         N         1T           Semester 4         Critical         Recommended         AUCC         Credits           CIVE 261         Engineering Mechanics-Dynamics         X         W         3         3           CIVE 303         Infrastructure and Transportation Systems         X         W         3         3           CIVE 367         Structural Analysis         X         W         3         3           CIVE 368         Introduction to Thermal Sciences         X         W         3         3           CIVE 369         Introduction to Thermal Sciences         X         3         3         3           Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)         X         3         3         3           Junior         Total Credits		Markanian of Calida		Recommended	AUCC	
GEOL 150         Dynamic Earth (GT-SC2)         X         3A         4           MATH 261         Calculus for Physical Scientists III         X         1C         3           Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/ all-university-curriculum/aucc/#diversity-equity-inclusion)         1C         3           Total Credits         Critical         Recommended         AUCC         Credits           Semester 4         Critical         Recommended         AUCC         Credits           CIVE 261         Engineering Mechanics-Dynamics         X         4         3           CIVE 263         Infrastructure and Transportation Systems         X         4         3           CIVE 367         Structural Analysis         X         4         3           CONE 203         Introduction to Thermal Sciences         X         3         3           Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-correcturiculum/aucc/#arts-humanities)         X         3         38         3           Junior         Total Credits         Recommended         AUCC         Credits           Semester 5         Critical         Recommended         AUCC         Credits           CIVE 3002         Fluid Mechanics						
MATH 261         Calculus for Physical Scientists III         X         4           Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-curriculum/aucc/#diversity-equity-inclusion)         1C         3           Total Credits         Critical         Recommended         AUCC         Credits           CIVE 261         Engineering Mechanics-Dynamics         X         4         3         3           CIVE 261         Engineering Mechanics-Dynamics         X         4         3         3           CIVE 367         Structural Analysis         X         4         3         3           CONE 203         Introduction to Thermal Sciences         X         3         3         3           MECH 237         Introduction to Thermal Sciences         X         38         3         3           Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-correctriculum/aucc/#arts-humanities)         X         38         3           Junior         Semester 5         Critical         Recommended         AUCC         Credits           Semester 5         Critical         Recommended         AUCC         Credits           CIVE 300         Fluid Mechanics         X         3					2.4	
Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-curriculum/aucc/#diversity-equity-inclusion)    Total Credits					3A	•
Total Credits   Total Credit		-			10	
Total Credits			og/		10	3
Semester 4CriticalRecommendedAUCCCreditsCIVE 261Engineering Mechanics-DynamicsX3CIVE 303Infrastructure and Transportation SystemsX4CIVE 367Structural AnalysisX5CONE 203Introduction to Thermal SciencesX3Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)X3B3B1 total CreditsCriticalRecommendedAUCCCreditsCIVE 300Fluid MechanicsX4UCCCreditsCIVE 302Evaluation of Civil Engineering MaterialsX4UCCCreditsCONE 301X444CONE 401X44MATH 340Intro to Ordinary Differential EquationsX55						17
CIVE 261         Engineering Mechanics-Dynamics         X         3           CIVE 303         Infrastructure and Transportation Systems         X         3           CIVE 367         Structural Analysis         X         3           CONE 203         Introduction to Thermal Sciences         X         3B         3           MECH 237         Introduction to Thermal Sciences         X         3B         3           Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curricullum/aucc/#arts-humanities)         X         3B         3           Junior         Semester 5         Credits         Recommended         AUCC         Credits           CIVE 300         Fluid Mechanics         X         Semester 5         Critical         Recommended         AUCC         Credits           CIVE 300         Fluid Mechanics         X         3         3         3           CIVE 302         Evaluation of Civil Engineering Materials         X         3         3         3           CONE 301         3         3         3         3 <t< td=""><td>Semester 4</td><td></td><td>Critical</td><td>Recommended</td><td>AUCC</td><td>Credits</td></t<>	Semester 4		Critical	Recommended	AUCC	Credits
CIVE 303         Infrastructure and Transportation Systems         X         3           CIVE 367         Structural Analysis         X         3           CONE 203         Introduction to Thermal Sciences         X         3           Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curiculum/aucc/#arts-humanities)         X         3B         3           18           Junior         Total Credits         Recommended         AUCC         Credits           Semester 5         Critical         Recommended         AUCC         Credits           CIVE 300         Fluid Mechanics         X         3         3           CIVE 302         Evaluation of Civil Engineering Materials         X         3         3           CONE 301         X         3         3         3           CONE 401         X         3         3         3           MATH 340         Intro to Ordinary Differential Equations         X         5         4         4		Engineering Mechanics-Dynamics				
CIVE 367 Structural Analysis X  CONE 203  MECH 237 Introduction to Thermal Sciences X  Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)  Total Credits  Semester 5 Critical Recommended AUCC Credits  CIVE 300 Fluid Mechanics X  CIVE 302 Evaluation of Civil Engineering Materials  CONE 301 X  CONE 401  X  MATH 340 Intro to Ordinary Differential Equations  X  3  X  3  X  3  X  3  X  3  3  3  3	CIVE 303		Х			3
CONE 203         MECH 237         Introduction to Thermal Sciences         X         3           Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)         X         3B         3           Total Credits         Recommended         AUCC         Credits           Semester 5         Critical         Recommended         AUCC         Credits           CIVE 300         Fluid Mechanics         X         3           CIVE 302         Evaluation of Civil Engineering Materials         X         3           CONE 301         X         1         1           CONE 401         X         3         3           MATH 340         Intro to Ordinary Differential Equations         X         5         4	CIVE 367		Х			
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)  Total Credits  Semester 5 Critical Recommended AUCC Credits  CIVE 300 Fluid Mechanics X CIVE 302 Evaluation of Civil Engineering Materials X CONE 301 CONE 301 CONE 401 MATH 340 Intro to Ordinary Differential Equations  X 3B 3	CONE 203	,				
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)  Total Credits  Semester 5 Critical Recommended AUCC Credits  CIVE 300 Fluid Mechanics X CIVE 302 Evaluation of Civil Engineering Materials X CONE 301 CONE 301 CONE 401 MATH 340 Intro to Ordinary Differential Equations  X 3B 3	MECH 237	Introduction to Thermal Sciences	Х			3
university-core-curriculum/aucc/#arts-humanities)       Total Credits       Junior       Semester 5     Critical     Recommended     AUCC     Credits       CIVE 300     Fluid Mechanics     X     3       CIVE 302     Evaluation of Civil Engineering Materials     X     3       CONE 301     X     1       CONE 401     X     3       MATH 340     Intro to Ordinary Differential Equations     X     4	Arts and Huma	nities (http://catalog.colostate.edu/general-catalog/all-		Х	3B	
JuniorSemester 5CriticalRecommendedAUCCCreditsCIVE 300Fluid MechanicsX3CIVE 302Evaluation of Civil Engineering MaterialsX5CONE 301X1CONE 401X5MATH 340Intro to Ordinary Differential EquationsX5						
Semester 5CriticalRecommendedAUCCCreditsCIVE 300Fluid MechanicsX3CIVE 302Evaluation of Civil Engineering MaterialsX5CONE 301X5CONE 401X5MATH 340Intro to Ordinary Differential EquationsX5		Total Credits				18
CIVE 300         Fluid Mechanics         X         3           CIVE 302         Evaluation of Civil Engineering Materials         X         3           CONE 301         X         1           CONE 401         X         3           MATH 340         Intro to Ordinary Differential Equations         X         4	Junior					
CIVE 302         Evaluation of Civil Engineering Materials         X         3           CONE 301         X         1           CONE 401         X         3           MATH 340         Intro to Ordinary Differential Equations         X         4	Semester 5		Critical	Recommended	AUCC	Credits
CONE 301         X         1           CONE 401         X         3           MATH 340         Intro to Ordinary Differential Equations         X         4	CIVE 300	Fluid Mechanics	X			3
CONE 401 X 3 MATH 340 Intro to Ordinary Differential Equations X 4	CIVE 302	Evaluation of Civil Engineering Materials	Х			3
MATH 340 Intro to Ordinary Differential Equations X 4	CONE 301		Х			1
	CONE 401		Χ			3
Design Focus Area Elective (see list on Program Requirements tab) X 3	MATH 340	Intro to Ordinary Differential Equations	Χ			4
	Design Focus A	rea Elective (see list on Program Requirements tab)	Χ			3

Semester 6	Critical	Recommended	AUCC	Credits
CIVE 355 Geotechnical Engineering	X	ricoommenaea	AGGG	3
CIVE 356 Geotechnical Engineering Laboratory	X			1
CONE 302	X			5
CONE 404	X			3
CONE 487				3
	X			1
Design Focus Area Elective (see list on Program Requirements tab)	Х			3
Total Credits				16
Senior				
Semester 7	Critical	Recommended	AUCC	Credits
CIVE 322 Basic Hydrology	Х			3
CONE 402	X		4A,4B	3
Technical Electives (see list on Program Requirements tab)				3
Advanced Writing (http://catalog.colostate.edu/general-catalog/all-		Χ	2	3
university-core-curriculum/aucc/#advanced-writing)				
Social and Behavioral Sciences (http://catalog.colostate.edu/general-			3C	3
catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences)				
Total Credits				15
Semester 8	Critical	Recommended	AUCC	Credits
CONE 403	X		4A,4C	3
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)		Х	3B	3
Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)		Х	3D	3
Design Focus Area Elective (see list on Program Requirements tab)	Х			3
The benchmark courses for the 8th semester are the remaining courses in	the X			
entire program of study.				
Total Credits				12
Program Total Credits:				126