MAJOR IN CONSTRUCTION ENGINEERING

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

Major Completion Map

Distinctive Requirements for Degree Program:

Semester 1 Critical Recommended AUCC Credits CON 1 00 1 College Composition (GT-CO2) X 1A 3 CON 1 01 1 Introduction to Construction Management X ————————————————————————————————————	Freshman					
CON 10	Semester 1		Critical	Recommended	AUCC	Credits
MATH 160	CO 150	College Composition (GT-CO2)	Χ		1A	3
MATH 160 PM 161 Physical Scientists I (GTMA1) X 1B 4 A PH 141 Physics for Scientists and Engineers I (GTSC1) X 3A 5 Total Credits Total Credits Recommended AUCC Credits CHEM 111 General Chemistry I (GT-SC2) X 3A 4 CHEM 112 General Chemistry Lab I (GT-SC1) X 3A 1A CIVE 260 Engineering Mechanics-Statics X 3A 1B 3A CONE 103 X 1B 4 4B August For Physical Scientists II (GT-MA1) X 1B 4B 4B Total Credits Critical Recommended AUCC Credits Suppose Total Credits Critical Recommended AUCC Credits CIVE 360 Mechanics of Solids X 3A 4A CONE 201 Construction Systems and Decision Analysis X 3A 4 CONE 201 Construction Systems and Decision Analysis X 3A 4	CON 101	Introduction to Construction Management	Χ			3
Ph 1 1 1 1 Physics for Scientists and Engineers I (GTSC1) X 3A 5 Foundatic Cedits Recommended AUCC Credits CHEM 11 1 General Chemistry I (GT-SC2) X 3A 4A CHEM 11 2 General Chemistry Lab I (GT-SC1) X 3A 1 CHEM 11 2 General Chemistry Lab I (GT-SC1) X 3A 1 CHEM 11 2 General Chemistry Lab I (GT-SC1) X 3A 1 CONE 103 AUT 1 3A 1B 3 CONE 103 Calculus for Physical Scientists III (GT-MA1) X 1B 4 Sophomore Total Credits Recommended AUCC Credits Sophomore Total Credits Recommended AUCC Credits CNWE 2010 Mechanics of Solids X 3A 9A 9A CNWE 2011 Construction Systems and Decision Analysis X 3A 9A 9A CNWE 2012 Calculus for Physical Scientists III X 3A	CONE 192		Χ			1
Total Credits	MATH 160	Calculus for Physical Scientists I (GT-MA1)	Х		1B	4
Semester 2 Critical Recommended AUCC Credition CHEM 111 General Chemistry Lab I (GTSC1) X 3A 4 CHEM 112 General Chemistry Lab I (GTSC1) X 3A 1 CHEM 120 Engineering Mechanics-Statics X 3A 3 CONE 103 Calculus for Physical Scientists II (GT-MA1) X 1B 3A MATH 161 Calculus for Physical Scientists II (GT-MA1) X 1B 3B MATH 161 Total Credits Recommended AUCC Creditia Semester 3 Control Recommended AUCC Creditia CWE 360 Mechanics of Solids X Recommended AUCC Creditia CWE 361 Onstruction Systems and Decision Analysis X 3A 4 4 CWE 261 Calculus for Physical Scientists III X 3A 4 4 BOLL 150 Dynamic Earth (GT-SC2) Creditia X 1C 3 CWE 201 Engineering Mechanics-Synamics <td>PH 141</td> <td>Physics for Scientists and Engineers I (GT-SC1)</td> <td>Χ</td> <td></td> <td>3A</td> <td>5</td>	PH 141	Physics for Scientists and Engineers I (GT-SC1)	Χ		3A	5
CHEM 1111 General Chemistry I (GT-SC2) X 3A 4 CHEM 1112 General Chemistry Lab I (GT-SC1) X 3A 1 CIVE 260 Engineering Mechanics-Statics X 3B 3 CONE 103 X 1B 4 Total Credits X 1B 4 Sephomore Control Recommended AUCC Credits Sophomore Recommended AUCC Credits CONE 201 Construction Systems and Decision Analysis X 3A 4 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 Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-curre-curriculum/aucc/#diversity-equity-inclusion) 1C 33 CIVE 261 Engineering Mechanics-Dynamics X 3 3 CIVE 267 Structural Analysis		Total Credits				16
CHEM 112 General Chemistry Lab I (GT-SC1) X 3A 1 CIVE 260 Engineering Mechanics-Statics X	Semester 2		Critical	Recommended	AUCC	Credits
CIVE 260 Engineering Mechanics Statics X 3 CONE 103 X 1B 4 Total Credits X 1B 4 Sophomore Sophomore Semester 3 Critical Recommended AUCC Credits CONE 201 Construction Systems and Decision Analysis X 3A 34 CONE 201 Construction Systems and Decision Analysis 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 3C Total Credits Total Credits Recommended AUCC Credits Colspan="4">Repulsive Mathematics Physical Scientists III X 3 3 CIVE 261 </td <td>CHEM 111</td> <td>General Chemistry I (GT-SC2)</td> <td>Χ</td> <td></td> <td>3A</td> <td>4</td>	CHEM 111	General Chemistry I (GT-SC2)	Χ		3A	4
CONE 103 X 1B 4 MATH 161 Calculus for Physical Scientists II (GF-MA1) X 1B 4 Total Credits 1 18 4 Sophomore Semester 3 Critical Recommended AUCC Credits SCMS 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 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 3 4 MECH 267 Total Credits Critical Recommended AUCC <	CHEM 112	General Chemistry Lab I (GT-SC1)	Χ		3A	1
MATH 161 Calculus for Physical Scientists II (GFMA1) X 1B 4 Total Credits Sophomore Semester 3 Critical Recommended AUCC Credits CIVE 360 Mechanics of Solids X	CIVE 260	Engineering Mechanics-Statics	Χ			3
Total Credits Sophomore Semester 3	CONE 103		Χ			3
Semester 3 Critical Recommended AUCC Credits CIVE 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 MATH 261 Calculus for Physical Scientists III X 1C 3 Bull-university-core-curriculum/aucc/#diversity-equity-inclusion) 1C 3 Total Credits T T 1T Semester 4 Critical Recommended AUCC Credits CIVE 261 Engineering Mechanics-Dynamics X S 3 CIVE 261 Structural Analysis X S 3 CIVE 261 Structural Analysis X 3 CIVE 263 Structural Analysis X 3	MATH 161	Calculus for Physical Scientists II (GT-MA1)	Χ		1B	4
Semester 3 Critical Recommended AUCC Credits CINE 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 MATH 261 Calculus for Physical Scientists III X 1C 3 MATH 261 Calculus for Physical Scientists III X 1C 3 all university-core-curriculum/aucc/#diversity-equity-inclusion) 1C 3 Total Credits Recommended AUCC 2 Total Credits Recommended AUCC Credits Critical Recommended AUCC Credits Critical Sciences X 3 3 3 Auts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities) X 3B 3 Total Credits Recommended <td></td> <td>Total Credits</td> <td></td> <td></td> <td></td> <td>15</td>		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 Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-corre-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 4 4 Credits CIVE 261 Engineering Mechanics-Dynamics X 4 3 3 3 3 3 3 3 3 3 4 4 Credits 4 2 4 3 3 3 3 3 3 3 3 3 3 4 4 2	Sophomore					
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 Diversity, Equity, and Inclusion (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 4 3 CIVE 261 Engineering Mechanics-Dynamics X 3 3 CIVE 303 Infrastructure and Transportation Systems X 3 3 CIVE 307 Structural Analysis X 3 3 CONE 203 Introduction to Thermal Sciences X 3 3 Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculm/aucc/#arts-humanities) X 3B 3 Junior Semester 5 Critical Recommended AUCC Credits CIVE 3	Semester 3		Critical	Recommended	AUCC	Credits
MATH 261 Calculus for Physical Scientists III X 3A MATH 261 Calculus for Physical Scientists III X 1C 3A MATH 261 Calculus for Physical Scientists III X 1C 3A Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion) Total Credits Total Cr	CIVE 360	Mechanics of Solids	X			3
MATH 261 Calculus for Physical Scientists III X 4 Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion) 1C 3 Total Credits Total Credits 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 CONE 203 Introduction to Thermal Sciences X 3B 3 3 CONE 203 Introduction to Thermal Sciences X 3B 3 3 Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities) X 3B 3 3 Semester 5 Critical Recommended AUCC Credits CIVE 300 Fluid Mechanics X W 3 CIVE 302 Evaluation of Civil Engineering Materials </td <td>CONE 201</td> <td>Construction Systems and Decision Analysis</td> <td>X</td> <td></td> <td></td> <td>3</td>	CONE 201	Construction Systems and Decision Analysis	X			3
Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-curriculum/aucc/#diversity-equity-inclusion) Total Credits	GEOL 150	Dynamic Earth (GT-SC2)	Χ		3A	4
Total Credits Total Credit	MATH 261	Calculus for Physical Scientists III	X			4
Total Credits Semester 4 Critical Recommended AUCC Credits CIVE 261 Engineering Mechanics-Dynamics X Semester 4 CIVE 303 Infrastructure and Transportation Systems Semester 5 CIVE 297 Total Credits Semester 5 CIVE 309 Fluid Mechanics CIVE 300 Fluid Mechanics CIVE 300 Fluid Mechanics Semester 5 CIVE 300 Fluid Mechan			og/		1C	3
Semester 4 Critical Recommended AUCC Credits CIVE 261 Engineering Mechanics-Dynamics X 3 3 CIVE 303 Infrastructure and Transportation Systems X	all-university-c					
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 3 MECH 237 Introduction to Thermal Sciences X 3B 3 Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities) X 3B 3 Semester 5 Total Credits Critical Recommended AUCC Credits CIVE 300 Fluid Mechanics X 4 3 CIVE 302 Evaluation of Civil Engineering Materials X 4 3 CONE 301 X X 3 CONE 401 X 3 3 MATH 340 Intro to Ordinary Differential Equations X 4 Design Focus Area Elective (see list on Program Requirements tab) X 5 3 Total Credits Critical Recommended AUCC Credits <td></td> <td>Total Credits</td> <td></td> <td></td> <td></td> <td></td>		Total Credits				
CIVE 303 Infrastructure and Transportation Systems X 3 CIVE 367 Structural Analysis X 3 CONE 203 Introduction to Thermal Sciences X 3 MECH 237 Introduction to Thermal Sciences X 3B 3 Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities) X 3B 3 Semester 5 Cradits 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 CONE 401 X 3 3 MATH 340 Intro to Ordinary Differential Equations X 4 Design Focus Area Elective (see list on Program Requirements tab) X 5 3 Total Credits Critical Recommended AUCC Credits	Semester 4		Critical	Recommended	AUCC	Credits
CIVE 367 Structural Analysis X 38 CONE 203 MECH 237 Introduction to Thermal Sciences X 38 Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curricullum/aucc/#arts-humanities) Total Credits 38 Semester 5 Critical Recommended AUCC Credits CIVE 300 Fluid Mechanics X 38 CIVE 302 Evaluation of Civil Engineering Materials X 38 CONE 301 X 30 CONE 301 X 30 CONE 401 X 30 MATH 340 Intro to Ordinary Differential Equations X 30 Design Focus Area Elective (see list on Program Requirements tab) X 30 Semester 6 Critical Recommended AUCC Credits 30 Credits 30 AUCC CREDIT 30 AUC	CIVE 261					3
MECH 237 Introduction to Thermal Sciences X 38 Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities) Total Credits Total Credits Semester 5 Critical Recommended AUCC Credits CIVE 300 Fluid Mechanics X 38 CIVE 302 Evaluation of Civil Engineering Materials X 38 CONE 301 X 30 CONE 401 X 30 MATH 340 Intro to Ordinary Differential Equations X 30 Design Focus Area Elective (see list on Program Requirements tab) X 30 Total Credits Total Credits Critical Recommended AUCC Credits		Infrastructure and Transportation Systems	X			3
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 X CONE 301 X CONE 301 X CONE 401 X MATH 340 Intro to Ordinary Differential Equations X Design Focus Area Elective (see list on Program Requirements tab) X Total Credits Semester 6 Critical Recommended AUCC Credits AUCC Credits AUCC Credits AUCC Credits AUCC Credits	CIVE 367	Structural Analysis	X			
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities) Total Credits Semester 5 Critical CIVE 300 Fluid Mechanics CIVE 302 Evaluation of Civil Engineering Materials CONE 301 CONE 301 CONE 401 CONE 401 MATH 340 Intro to Ordinary Differential Equations MATH 340 Design Focus Area Elective (see list on Program Requirements tab) Total Credits X 3B						3
university-core-curricullum/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 Design Focus Area Elective (see list on Program Requirements tab) X - 3 Total Credits Critical Recommended AUCC Credits			X			3
JuniorSemester 5CriticalRecommendedAUCCCreditsCIVE 300Fluid MechanicsX3CIVE 302Evaluation of Civil Engineering MaterialsX5CONE 301X51CONE 401X53MATH 340Intro to Ordinary Differential EquationsX54Design Focus Area Elective (see list on Program Requirements tab)X53Total CreditsRecommendedAUCCCredits	, , , , , , , , , , , , , , , , , , , ,			Х	3B	3
Semester 5CriticalRecommendedAUCCCreditsCIVE 300Fluid MechanicsX3CIVE 302Evaluation of Civil Engineering MaterialsX-3CONE 301X-1CONE 401X-3MATH 340Intro to Ordinary Differential EquationsX-4Design Focus Area Elective (see list on Program Requirements tab)X-3Total CreditsTotal CreditsRecommendedAUCCCredits		Total Credits				18
CIVE 300 Fluid Mechanics X 3 CIVE 302 Evaluation of Civil Engineering Materials X 3 CONE 301 X 11 CONE 401 X 3 MATH 340 Intro to Ordinary Differential Equations X 3 Design Focus Area Elective (see list on Program Requirements tab) X 3 Total Credits Recommended AUCC Credits	Junior					
CIVE 302 Evaluation of Civil Engineering Materials X 3 CONE 301 X 11 CONE 401 X 3 MATH 340 Intro to Ordinary Differential Equations X 4 Design Focus Area Elective (see list on Program Requirements tab) X 3 Total Credits 17 Semester 6 Critical Recommended AUCC Credits	Semester 5		Critical	Recommended	AUCC	Credits
CONE 301 X 31 CONE 401 X 33 MATH 340 Intro to Ordinary Differential Equations X 4 Design Focus Area Elective (see list on Program Requirements tab) X 33 Total Credits 717 Semester 6 Critical Recommended AUCC Credits	CIVE 300	Fluid Mechanics	X			3
CONE 401 X 3 MATH 340 Intro to Ordinary Differential Equations X 4 Design Focus Area Elective (see list on Program Requirements tab) X 3 Total Credits 7 Semester 6 Critical Recommended AUCC Credits	CIVE 302	Evaluation of Civil Engineering Materials	Χ			3
MATH 340 Intro to Ordinary Differential Equations X 4 Design Focus Area Elective (see list on Program Requirements tab) X 3 Total Credits 17 Semester 6 Critical Recommended AUCC Credits	CONE 301		X			1
Design Focus Area Elective (see list on Program Requirements tab) Total Credits Semester 6 X 3 Critical Recommended AUCC Credits	CONE 401		X			3
Total Credits 17 Semester 6 Critical Recommended AUCC Credits	MATH 340	Intro to Ordinary Differential Equations	Χ			4
Semester 6 Critical Recommended AUCC Credits	Design Focus	Area Elective (see list on Program Requirements tab)	Χ			3
		Total Credits				17
CIVE 355 Geotechnical Engineering X 3	Semester 6		Critical	Recommended	AUCC	Credits
	CIVE 355	Geotechnical Engineering	X			3

2 Major in Construction Engineering

CIVE 356	Geotechnical Engineering Laboratory	Х			1
CONE 302		Χ			5
CONE 404		Χ			3
CONE 487		Χ			1
Design Focus Area Elective (see list on Program Requirements tab)		Χ			3
	Total Credits				16
Senior					
Semester 7		Critical	Recommended	AUCC	Credits
CIVE 322	Basic Hydrology	Χ			3
CONE 402		X		4A,4B	3
Technical Electiv	ves (see list on Program Requirements tab)				3
	ng (http://catalog.colostate.edu/general-catalog/all- curriculum/aucc/#advanced-writing)		X	2	3
	vioral Sciences (http://catalog.colostate.edu/general- ersity-core-curriculum/aucc/#social-behavioral-sciences)			3C	3
	Total Credits				15
Semester 8		Critical	Recommended	AUCC	Credits
CONE 403		Χ		4A,4C	3
	nities (http://catalog.colostate.edu/general-catalog/all- curriculum/aucc/#arts-humanities)		X	3B	3
	ectives (http://catalog.colostate.edu/general-catalog/all- curriculum/aucc/#historical-perspectives)		Х	3D	3
Design Focus Ar	rea Elective (see list on Program Requirements tab)	Χ			3
The benchmark entire program of	courses for the 8th semester are the remaining courses in the of study.	X			
	Total Credits				12
	Program Total Credits:				126