

Civil ■ Construction ■ Architectural ■ Environmental

Department of Civil, Construction, and Environmental Engineering

Rev: February 22, 2014

Common Freshman and Sophomore Years (credit hours)

Semester	Civil Engineering	Construction Engineering	Architectural Engineering	Environmental Engineering
First (15 hours)	CE 121 Intro to CCEE (1) MATH 125 Calculus I (4) ENGR 103 Engrg Foundations (3) EN 101 English Composition I (3) CH 101 Chemistry I (4)	CE 121 Intro to CCEE (1) MATH 125 Calculus I (4) ENGR 103 Engrg Foundations (3) EN 101 English Composition I (3) CH 101 Chemistry I (4)	CE 121 Intro to CCEE (1) MATH 125 Calculus I (4) ENGR 103 Engrg Foundations (3) EN 101 English Composition I (3) CH 101 Chemistry I (4)	CE 121 Intro to CCEE (1) MATH 125 Calculus I (4) ENGR 103 Engrg Foundations (3) EN 101 English Composition I (3) CH 101 Chemistry I (4)
Second (15 hours)	ENGR 171 Engrg Graphics (1) MATH 126 Calculus II (4) PH 105 Gen Physics w/ Calculus I (4) EN 102 English Composition II (3) HI/SB ¹ (3)	ENGR 171 Engrg Graphics (1) MATH 126 Calculus II (4) PH 105 Gen Physics w/ Calculus I (4) EN 102 English Composition II (3) HI/SB ¹ (3)	ENGR 171 Engrg Graphics (1) MATH 126 Calculus II (4) PH 105 Gen Physics w/ Calculus I (4) EN 102 English Composition II (3) HI/SB ¹ (3)	ENGR 171 Engrg Graphics (1) MATH 126 Calculus II (4) PH 105 Gen Physics w/ Calculus I (4) EN 102 English Composition II (3) HI/SB ¹ (3)
Third (16 hours)	CE 260 Surveying (2) AEM 201 Statics (3) MATH 227 Calculus III (4) GES 255 Engrg Statistics (3) Natural Science Elective* (4)	CE 260 Surveying (2) AEM 201 Statics (3) MATH 227 Calculus III (4) GES 255 Engrg Statistics (3) Natural Science Elective* (4)	CE 260 Surveying (2) AEM 201 Statics (3) MATH 227 Calculus III (4) GES 255 Engrg Statistics (3) Natural Science Elective* (4)	CE 260 Surveying (2) AEM 201 Statics (3) MATH 227 Calculus III (4) GES 255 Engrg Statistics (3) Natural Science Elective* (4)
Fourth (16 hours)	CE 262 Civil & Const Engrg Mat'ls (3) AEM 250 Mechanics of Materials (3) AEM 264 Dynamics (3) MATH 238 Differential Equations (3) CH 102 Gen Chemistry II or PH 106 Gen Phys w/ Calculus II (4)	CE 262 Civil & Const Engrg Mat'ls (3) AEM 250 Mechanics of Materials (3) AEM 264 Dynamics (3) MATH 238 Differential Equations (3) PH 106 Gen Phys w/ Calculus II (4)	CE 262 Civil & Const Engrg Mat'ls (3) AEM 250 Mechanics of Materials (3) AEM 264 Dynamics (3) MATH 238 Differential Equations (3) PH 106 Gen Phys w/ Calculus II (4)	CE 262 Civil & Const Engrg Mat'ls (3) AEM 250 Mechanics of Materials (3) AEM 264 Dynamics (3) MATH 238 Differential Equations (3) CH 102 Gen Chemistry II (4)
*Approved Natural Science Electives	BSC 114/115 Principles of Biology GEO 101 Dynamic Earth GEO 102 Earth Through Time GEO 104 Hazardous Earth GEO 105 Sustainable Earth GY 101 Atmospheric Processes GY 102 Earth Surface Processes Note: Science Elective cannot be chemistry (CH) or physics (PH)	BSC 114/115 Principles of Biology CH 102 Gen Chemistry II GEO 101 Dynamic Earth GEO 102 Earth Through Time GEO 104 Hazardous Earth GEO 105 Sustainable Earth GY 101 Atmospheric Processes GY 102 Earth Surface Processes	BSC 114/115 Principles of Biology CH 102 General Chemistry II GEO 101 Dynamic Earth GEO 102 Earth Through Time GEO 104 Hazardous Earth GEO 105 Sustainable Earth GY 101 Atmospheric Processes GY 102 Earth Surface Processes	GEO 101 Dynamic Earth GEO 102 Earth Through Time GEO 104 Hazardous Earth GEO 105 Sustainable Earth GY 101 Atmospheric Processes GY 102 Earth Surface Processes Note: Science Elective must be an "Earth" science

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Junior and Senior Years (credit hours)

Semester	Civil Engineering	Construction Engineering	Architectural Engineering	Environmental Engineering
Fifth (15-16 hrs)	CE 331 Structural Engrg (3) CE 340 Geotechnical Engrg (4) CE 350 Transportation Engrg (3) AEM 311 Fluid Mechanics (3) HI/SB ¹ (3)	CE 331 Structural Engrg (3) CE 340 Geotechnical Engrg (4) CE 366 Construction Engrg (3) Engineering Systems Elective (3) HI/SB ¹ (3)	CE 331 Structural Engrg (3) CE 366 Construction Engrg (3) AEM 311 Fluid Mechanics (3) ECE 320 Fund of Electrical Engrg (3) HI/SB ¹ (3)	CE 320 Environmental Engrg (3) BSC 114/115 Principles of Biology (4) AEM 311 Fluid Mechanics (3) COM 123 Public Speaking (3) HI/SB ¹ (3)
Sixth (15-16 hrs)	CE 320 Environmental Engrg (3) CE 366 Construction Engrg (3) CE 378 Water Resources Engrg (3) ECE 320 Fund of Electr Engrg or ME 216 Thermal Engrg Survey (3) HI/SB ¹ (3)	CE 418 Engrg Management (3) CE 462 Vertical Construction (3) CE 463 Constr Cost Estimating (3) Engineering Systems Elective ² (3) HI/SB ¹ (3)	CE 340 Geotechnical Engrg (4) CE 434 Steel Design I (3) ECE 350 Elec Power & Machines (3) ME 216 Thermal Engrg Survey (3) HI/SB ¹ (3)	CE 340 Geotechnical Engrg (4) CE 378 Water Resources Engrg (3) CE 425 Air Pollution (3) ME 216 Thermal Engrg Survey (3) HI/SB ¹ (3)
Seventh (15 hours)	Senior Plan of Study Elective (3) Senior Plan of Study Elective (3) Senior Plan of Study Elective (3) COM 123 Public Speaking (3) HU/L/FA ¹ (3)	Senior Plan of Study Elective (3) CE 461 Horizontal Construction (3) CE 468 Construction Scheduling (3) COM 123 Public Speaking (3) HU/L/FA ¹ (3)	Senior Plan of Study Elective (3) CE 433 Reinforced Concrete I (3) ME 407 Heating Vent & Air Cond (3) COM 123 Public Speaking (3) HU/L/FA ¹ (3)	Senior Plan of Study Elective (3) Senior Plan of Study Elective (3) CE 424 Water/Waste Treatment (3) CE 475 Hydrology (3) HU/L/FA ¹ (3)
Eighth (16 hours)	CE 401 or CE 403 Capstone Proj (4) Senior Plan of Study Elective (3) Senior Plan of Study Elective (3) Senior Plan of Study Elective (3) HU/L/FA ¹ (3)	CE 401 or CE 403 Capstone Proj (4) Senior Plan of Study Elective (3) Senior Plan of Study Elective (3) CE 464 Safety Engrg (3) HU/L/FA ¹ (3)	CE 403 Capstone Project – Bldg (4) Senior Plan of Study Elective (3) Senior Plan of Study Elective (3) CE 462 Vertical Construction (3) HU/L/FA ¹ (3)	CE 401 Capstone Project – Site (4) Senior Plan of Study Elective (3) CE 422 Solid/Hazardous Waste (3) CE 420 Environ Measurements (3) HU/L/FA ¹ (3)
Total Hours	124 credit hours	124 credit hours	124 credit hours	125 credit hours
Advising Notes	1. Recommendations: • CE 220 and EC 110 as an SB • Foreign language as an HU	1. Recommendations: • CE 220 and EC 110 as an SB • Foreign language as an HU 2. Engineering Systems Electives (take two of three): • AEM 311 • ECE 320 • ME 216	1. Recommendations: • CE 220 and EC 110 as an SB • Foreign language as an HU	1. Recommendations: • CE 220 and EC 110 as an SB • Foreign language as an HU
Students are strongly encouraged to take the Fundamentals of Engineering (FE) Exam during their senior year. Please visit ncees.org/exams/fe-exam/ .				
Please refer to the University of Alabama catalog for additional degree and core curriculum requirements.				

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Senior Plan of Study Elective Requirements and Capstone Project Prerequisites

	Civil Engineering	Construction Engineering	Architectural Engineering	Environmental Engineering
Senior Plan of Study Elective Requirements	<p>The six senior plan of study electives must include:</p> <ul style="list-style-type: none"> • At least two Design (D) electives^{3,4} • No more than two Professional Practice (P) electives^{3,4} • No more than four General Technical (G) electives^{3,4} <p>A full list of approved electives can be found in the Undergraduate Guide to Senior Plan of Study Electives, Senior Design, Licensure, and Graduate School.</p>	<p>The three senior plan of study electives must include:</p> <ul style="list-style-type: none"> • At least one Construction Design (CD) elective^{3,4} • At least one Project Management (PM) elective^{3,4} • No more than one General Technical (GT) elective^{3,4} <p>A full list of approved electives can be found in the Undergraduate Guide to Senior Plan of Study Electives, Senior Design, Licensure, and Graduate School.</p>	<p>Select any three approved senior plan of study electives.^{3,4}</p> <p>A full list of approved electives can be found in the Undergraduate Guide to Senior Plan of Study Electives, Senior Design, Licensure, and Graduate School.</p>	<p>Select any three approved senior plan of study electives.^{3,4}</p> <p>A full list of approved electives can be found in the Undergraduate Guide to Senior Plan of Study Electives, Senior Design, Licensure, and Graduate School.</p>
Advising Notes	<p>3. Students with an overall GPA ≥ 3.0 are encouraged to consider taking 500-level CE courses as senior plan of study electives and 500-level versions of required 400-level courses.</p> <p>4. Students with an overall GPA ≥ 3.3 are encouraged to apply for the University Scholars (BS/MS) Program. University Scholars may also consider taking 600-level CE course as senior plan of study electives.</p>			
CE 401 Capstone Project – Site Design Prerequisites	<ul style="list-style-type: none"> • CE 320, CE 350, and CE 378 • Six (6) credit hours of any 400- or 500- level CE courses • Two of the following (may be taken concurrently): CE 424/524, CE 425/525, CE 442/542, CE 451, CE 459/559, CE 475/575 	<ul style="list-style-type: none"> • CE 340 and CE 366 • CE 320, CE 350, or CE 378 • Six (6) credit hours of any 400- or 500- level CE courses • Two of the following (may be taken concurrently): CE 442/552, CE 459/559, CE 461/561 	CE 401 is not permitted for BSArchE	<ul style="list-style-type: none"> • CE 320, CE 340 and CE 378 • Six (6) credit hours of any 400- or 500- level CE courses • Two of the following (may be taken concurrently): CE 424/524, CE 425/525, CE 442/542, CE 475/575
CE 403 Capstone Project – Building Design Prerequisites	<ul style="list-style-type: none"> • CE 331, CE 340, and CE 366 • Six (6) credit hours of any 400- or 500- level CE courses • Two of the following (may be taken concurrently): CE 433, CE 434, CE 437/537, CE 438/538, CE 439, CE 444/544, CE 462/562, CE 536, CE 543 	<ul style="list-style-type: none"> • CE 331, CE 340, and CE 366 • Six (6) credit hours of any 400- or 500- level CE courses • Two of the following (may be taken concurrently): CE 433, CE 434, CE 437/537, CE 438/538, CE 439, CE 444/544, CE 462/562, CE 536, CE 543 	<ul style="list-style-type: none"> • CE 331, CE 340, and CE 366 • Six (6) credit hours of any 400- or 500- level CE courses • Two of the following (may be taken concurrently): CE 433, CE 434, CE 437/537, CE 438/538, CE 439, CE 444/544, CE 462/562, CE 536, CE 543 	CE 403 is not permitted for BSEnvE