

**BSCE Civil Engineering
Fall 2020**

This document is an example of a BSCE program of study. Several factors can affect the course scheduling sequence. For a copy of the official curriculum, please go to the UGA Bulletin: <http://bulletin.uga.edu/>

Major Requirements

Students must earn a grade of "C" (2.0) or better in the courses indicated in **bold**.

High Demand Entrance Requirements

To be considered as a candidate for BSCE, students must complete any required courses listed in *italics* with a grade of "C" (2.0) or better. For more information on entrance requirements, please refer to the UGA Bulletin: <http://bulletin.uga.edu/> and our website.

YEAR ONE					
<u>Fall Semester</u>		<u>Hours</u>	<u>Spring Semester</u>		<u>Hours</u>
MATH 2250	<i>Calculus I</i>	4	MATH 2260	<i>Calculus II</i>	4
ENGR 1920	Intro to Engineering	1	PHYS 1251	<i>Physics for Engineers I</i>	3
ENGR 1120	<i>Engineering Graphics</i>	2	ENGL 1102	English Composition II	3
ENGR 1140	<i>Computational Engr. Methods</i>	2	COMM 1110 ¹	Intro to Public Speaking	3
ENGL 1101	<i>English Composition I</i>	3		Life Science Elective ²	3
	Social Sciences Elective	3			
FYOS	First-Year Odyssey Seminar	1			
Total Credit Hours		16	Total Credit Hours		16

YEAR TWO					
<u>Fall Semester</u>		<u>Hours</u>	<u>Spring Semester</u>		<u>Hours</u>
MATH 2500	Multivariable Calculus	3	MATH 2700	Differential Equations	3
ENGR 2120	Statics	3	ENGR 2140	Strength of Materials	3
PHYS 1252	Physics for Engineers II	3	ENGR 3140	Thermodynamics I	3
CHEM 1211&L	Freshman Chemistry I	4	ENGR 3160	Fluid Mechanics	3
	Social Sciences Elective	3	ENGR 2110	Engineering Decision Making	3
			CVLE 2210	Principles Surveying & Transportation	2
Total Credit Hours		16	Total Credit Hours		17

YEAR THREE					
<u>Fall Semester</u>		<u>Hours</u>	<u>Spring Semester</u>		<u>Hours</u>
ENGR 2130	Dynamics	3	CVLE 3420	Introduction to Soil Mechanics	3
ENGR 3150	Heat Transfer	3	CVLE 2710	Numerical Methods for Engineers	2
ENVE 4435	Natural Resources Engineering	3	CVLE 3310	Civil Engineering Materials	3
CVLE 3610	Structural Design	3	CVLE 3730	Civil Engineering Project Mgmt	2
ENVE 3510	Modeling, Stat. Analysis, Uncertainty	3	CVLE 3450	Civil Engineering Lab – Soils	1
CVLE 3460	Civil Engineering Lab - Hydraulics	1		Civil Engineering Elective	3
				World Lang & Culture Elective	3
Total Credit Hours		16	Total Credit Hours		17

YEAR FOUR					
<u>Fall Semester</u>		<u>Hours</u>	<u>Spring Semester</u>		<u>Hours</u>
CVLE 4910	Capstone Design Project I	2	CVLE 4911	Capstone Design Project II	2
CVLE 3470	Civil Engineering Lab - Structural	1		Civil Engineering Elective	3
	Civil Engineering Elective	3		Civil Engineering Elective	3
	Civil Engineering Elective	3		Civil Engineering Elective	3
	Civil Engineering Elective	3		World Lang & Culture Elective	3
	World Lang & Culture Elective	3		Social Sciences Elective	3
Total Credit Hours		15	Total Credit Hours		17

¹COMM 1110 is required for BSCE; it will also satisfy the Area Humanities & The Arts requirement.

²Life Science Elective: Select from ECOL 1000 or MARS 1100 or BIOL 1104.

Civil Engineering Electives

Choose seven (7) courses from at least two (2) of the following tracks (21 credit hours). At least three (3) design courses (indicated in *italics*) must be selected.

Geotechnical

CVLE 4420	Advanced Soil Mechanics
CVLE 4430	Groundwater Engineering
<i>CVLE 4440</i>	<i>Design with Geosynthetics</i>
CVLE 4450	<i>Geotechnical Structures – Foundations and Retaining Walls</i>
<i>CVLE 4470/6470</i>	<i>Pavement Design</i>
GEOL 4360/6360	Intro to Rock Mechanics

Hydraulics

CVLE 3440	<i>Hydraulics of Closed Conduit Flow</i>
<i>ENVE 4410/6430</i>	<i>Open Channel Hydraulics</i>
WASR 4500/6500	Quantitative Methods in Hydrology

Infrastructure Engineering

CVLE 4730	Project Estimating and Planning
CVLE 4750	Building Information Modeling (BIM)
<i>CVLE 4760</i>	<i>Commercial Building Systems</i>
CVLE/MCHE/LAND 4660/6660	Sustainable Building Design
ENVE 4550/6550	Environmental Life Cycle Analysis
ENVE 4710	GIS for Urban Engineering, Planning, Development
ENVE 4720	Urban Infrastructure Planning and Development
MCHE 4650/6650	HVAC Systems for Buildings and Industry

Structural Engineering

CVLE 4330/6330	Advanced Structural Analysis
<i>CVLE 4340/6340</i>	<i>Design of Bridges</i>
<i>CVLE 4530</i>	<i>Design of Reinforced Concrete Structures</i>
<i>CVLE 4610</i>	<i>Design of Light Steel Structures</i>
<i>CVLE/MCHE 4720</i>	<i>Engineering Design of Residential Structures</i>
<i>CVLE 4810</i>	<i>Design of Wood Structures</i>
ENGR 4350/6350	Intro to Finite Element Analysis