

## PROGRAM SUMMARY

- **Credit Hours:** 128
- **Concentrations:** Energy Infrastructure; Environmental/Water Resources; Geotechnical; Land Development; Structures; and Transportation
- **Declaring the Major:** Completion of freshman level courses with a grade of “C” or better.
- **Advising (For the Major):** Students completing freshman level courses will be assigned an advisor either in the Office of Student Development and Success (OSDS) or within the University College if not admitted to the College of Engineering as a freshman or transfer students. Upon completion of freshman level courses, students will be assigned an advisor within the Department of Civil and Environmental Engineering.
- **Advising (For General Education):** n/a
- **Minimum Grades/GPA:** 2.0
- **Teacher Licensure:** n/a
- **Evening Classes Available:** Yes
- **Weekend Classes Available:** No
- **Other Information:**
- **Contact(s):** Dr. William Saunders, Director, Undergraduate Programs, EPIC 3248, 704-687-1234, [wlsaunde@uncc.edu](mailto:wlsaunde@uncc.edu)

## PROGRAM REQUIREMENTS

The B.S.C.E. curriculum is a four year program of study that prepares students to pursue careers in the Civil and Environmental Engineering profession, inclusive of Environmental, Geotechnical, Structural, and Transportation Engineering sub-disciplines. Students may also earn a concentration in Energy Infrastructure, Structures, Land Development, Geotechnical, Transportation, or Environmental. In the first year of the program, students will need to complete MATH 1241, UWRT 1103/1104, ENGR 1201, LBST 110X series, one LBST Series\*, MATH 1242, PHYS 2101, PHYS 2101L, ENGR 1202, the General Education Social Science Requirement, and the Science Elective under the advisement of the Office of Student Development and Success. Upon successful completion of freshman level courses, the student will be transferred to the Department of Civil and Environmental Engineering for major advising.

Areas	Credit Hours	Description
<b>Pre-Major</b>	14	MATH 1241, ENGR 1201, MATH 1242, PHYS 2101, PHYS 2101L, ENGR 1202,
<b>Major</b>	87	
<b>General Education</b> <i>(not satisfied by other major requirements)</i>	18-19	UWRT 1103/1104, Social Science requirement, LBST 110X series, LBST 2301, LBST Series* *Take two of the following LBST 2101, 2102, or 22XX
<b>Related Work</b>	-	
<b>Foreign Language</b>	-	
<b>Electives</b>	6	Science and Math/Science elective requirement, refer to list of approved courses
<b>Total Credit Hours</b>	128	

# PLAN OF STUDY

## Freshman Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
MATH 1241	Calculus I	3	X		Pre-requisite for entry into major, requires a grade of "C" or better
XXXX XXXX	Science Elective (select from approved Biology & Earth Sci. courses)	3			
ENGR 1201	Introduction to Engineering Practices & Principles I	2			Pre-requisite for entry into major; "C" or better
LBST 110X	LBST 1100 series: Arts & Society	3	X		
XXXX XXXX	Social Science Elective	3	X		
<i>Spring Semester</i>					
MATH 1242	Calculus II	3	X		Pre-requisite for entry into major; "C" or better
PHYS 2101	Physics for Science & Engineering I	3	X		Pre-requisite for entry into major; "C" or better
PHYS 2101L	Physics for Science & Engineering I Lab	1	X		Pre-requisite for entry into major; "C" or better
UWRT 1103/4	Writing and Inquiry in Academic Contexts II	3/4	X		Requires a grade of "C" or better
ENGR 1202	Intro. to Engineering Practices & Principles II: Civil Engineering	2			Pre-requisite for entry into major; "C" or better
LBST Series*		3	X		

29/30 Credit Hours for Year

## Sophomore Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
MATH 2241	Calculus III	3			Requires a grade of "C" or better
PHYS 2102	Physics for Science & Engineering II	3	X		
PHYS 2102L	Physics for Science & Engineering II Lab	1			
CEGR 2102	Engineering Economic Analysis	3			Requires a grade of "C" or better
CEGR 2101	Civil Engineering Drawing	2			
MEGR 2141	Engineering Mechanics I	3			Requires a grade of "C" or better
LBST 2301	Critical Thinking and Communication	3			
<i>Spring Semester</i>					
MATH 2171	Differential Equations	3			Requires a grade of "C" or better
CEGR 2104	Surveying & Site Design	3			Requires a grade of "C" or better
CEGR 2154	Design Project Lab (Sophomore Design)	2	X	O	Requires a grade of "C" or better
CHEM 1251	Principles of Chemistry I	3			Requires a grade of "C" or better
CHEM 1251L	Principles of Chemistry I Lab	1			Requires a grade of "C" or better
MEGR 2144	Introduction to Solid Mechanics	3			Pre-requisite for upper division courses; requires a grade of "C" or better
CEGR 3255	Structural Materials Lab	2	X	W	Requires a grade of "C" or better

35 Credit Hours for Year

## Junior Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
CEGR 3143	Hydraulics & Hydrology	3			Requires a grade of "C" or better
CEGR 3141	Introduction to Environmental Engineering	3			Requires a grade of "C" or better
CEGR 3155	Introduction to Environmental Engineering Lab	2	X	W	
CEGR 3278	Geotechnical Engineering	3			Requires a grade of "C" or better
CEGR 3258	Geotechnical Engineering Lab	2	X	W	
CEGR 3122	Structural Analysis	3			Requires a grade of "C" or better
<i>Spring Semester</i>					
CEGR 3161	Transportation Engineering I	3			Requires a grade of "C" or better
CEGR 3153	Transportation Engineering I Lab	2		W	
XXXX XXXX	MEGR/ECGR Elective	3			Choose from: MEGR 3121, 3111, or ECGR 2161
XXXX XXXX	MEGR/ECGR Elective	3			Choose from: MEGR 3121, 3111, or ECGR 2161
CEGR 3111	Construction Engineering	3			Requires a grade of "C" or better
CEGR XXXX	CEGR Design Elective	3			A list of approved courses is available on the department website. Requires a grade of "C" or better

33 Credit Hours for Year

## Senior Year

Course Number	Course Title	Credit Hours	General Education	W/O Course	Notes
<i>Fall Semester</i>					
STAT 3128	Probability & Statistics for Engineers	3			
CEGR XXXX	CEGR Elective	3			Choose from CEGR 3221 or CEGR 3225
CEGR XXXX	CEGR Design Elective	3			A list of approved courses is available on the department website. Requires a grade of "C" or better
ENGR 3295	Global and Intercultural Connections	1			
XXXX XXXX	Math/Science Elective (Select from approved courses in Biology, Earth Science, Mathematics, Chemistry and Physics)	3			
<i>Spring Semester</i>					
CEGR 3201	Systems & Design (Senior Design)	3			Requires a grade of "C" or better
CEGR XXXX	CEGR Elective	3			Select from CEGR courses 3000 level or above
CEGR XXXX	CEGR Elective	3			Select from CEGR courses 3000 level or above
XXXX XXXX	Technical Elective	3			Select from list of approved upper division courses
LBST Series*		3	X		

28 Credit Hours for Year

\*Take two of the following LBST 2101, 2102, or 22XX

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## ADVISING RESOURCES

- General Education Requirements for ALL Students: [ucol.uncc.edu/general-education](http://ucol.uncc.edu/general-education)
- Undergraduate Catalog: [catalog.uncc.edu](http://catalog.uncc.edu)
- Central Advising website: [advising.uncc.edu](http://advising.uncc.edu)
- College of Engineering advising website: [coe.uncc.edu/current-students/advising.html](http://coe.uncc.edu/current-students/advising.html)
- University Advising Center website: [advisingcenter.uncc.edu](http://advisingcenter.uncc.edu)