



Program of Study

Degree Requirements (126 hours)

1. Carolina Core (34-46 hours)

- a. **CMW** (6 hours) –*must be passed with a grade of C or higher*
 - i. ENGL 101 - Critical Reading and Composition
 - ii. ENGL 102 - Rhetoric and Composition
- b. **ARP** (8 hours) –*must be passed with a grade of C or higher*
 - i. MATH 141 - Calculus I
 - ii. MATH 142 - Calculus II
- c. **SCI** (8 hours) –*must be passed with a grade of C or higher*
 - i. CHEM 111 - General Chemistry I
 - ii. CHEM 111L - General Chemistry I Laboratory
 - iii. PHYS 211 - Essentials of Physics I
 - iv. PHYS 211L - Essentials of Physics I Lab
- d. **GFL** (0-6 hours): Students in the College of Engineering and Computing are required to demonstrate proficiency in one foreign language equivalent to the 121 course by 1) a score of two or better on the foreign language placement test; or 2) completion of the 109 and 110 courses in FREN, GERM, LATN, or SPAN or completion of the 121 course in another foreign language.
- e. **GHS** (3 hours): any approved CC-GHS course
- f. **GSS** (3 hours): any approved CC-GSS course
- g. **AIU** (3 hours): any approved CC-AIU course

Carolina Core Stand Alone or Overlay Eligible Requirements:

Up to two of these requirements may be met in overlay courses. At least one of these requirements must be satisfied by a course not applied elsewhere in general education. (3-9 Hours)

- h. **CMS** (3 hours) Choose from:
 - i. PHIL 325 - Engineering Ethics (CMS/VSR overlay)
 - ii. any approved overlay or stand-alone CC-CMS course
- i. **INF** (0-3 hours): ENGL 102 *or* any approved overlay or stand-alone CC-INF course
- j. **VSR** (0-3 hours) Choose from:
 - i. PHIL 325 - Engineering Ethics (CMS/VSR overlay)
 - ii. any approved overlay or stand-alone CC-VSR course

2. College Requirements: None required by the College of Engineering and Computing

3. Program Requirements (62-63 hours)

- a. **Supporting Courses** (62-63 hours)
 - i. CSCE 146 - Algorithmic Design II *or* EMCH 201 - Introduction to Applied Numerical Methods *or* PHYS 306 - Principles of Physics III
 - ii. ECON 421 - Engineering Economics
 - iii. EMCH 220 - Mechanical Engineering Fundamentals for Non-majors
 - iv. MATH 241 - Vector Calculus –*must be passed with a grade of C or higher*
 - v. MATH 242 - Elementary Differential Equations –*must be passed with a grade of C or higher*
 - vi. PHYS 212 - Essentials of Physics II –*must be passed with a grade of C or higher*
 - vii. PHYS 212L - Essentials of Physics II Lab –*must be passed with a grade of C or higher*
 - viii. STAT 509 - Statistics for Engineers
 - ix. **Lower Division Engineering** (25 hours):
 1. CSCE 145 - Algorithmic Design I –*must be passed with a grade of C or higher*

2. CSCE 211 - Digital Logic Design *–must be passed with a grade of C or higher*
 3. CSCE 212 - Introduction to Computer Architecture
 4. ELCT 101 - Electrical and Electronics Engineering *or* ENCP 101 - Introduction to Engineering I
 5. ELCT 102 - Electrical Science
 6. ELCT 201 - Introductory Electrical Engineering Laboratory
 7. ELCT 221 - Circuits *–must be passed with a grade of C or higher*
 8. ELCT 222 - Signals and Systems *–must be passed with a grade of C or higher*
- x. **Career Plan Electives** (15 hours)
The student, in consultation with his or her advisor, will select 15 hours of electives that support the student's defined career plan. Not more than 6 hours of these electives may be from another discipline, and all must be at or above the 300-level.

4. **Major Requirements (30 hours)**

- a. **Major Courses** (30 hours)
- i. ELCT 301 - Electronics Laboratory
 - ii. ELCT 302 - Real-Time Systems Laboratory
 - iii. ELCT 321 - Digital Signal Processing
 - iv. ELCT 331 - Control Systems
 - v. ELCT 350 - Computer Modeling of Electrical Systems
 - vi. ELCT 361 - Electromagnetics
 - vii. ELCT 363 - Introduction to Microelectronics
 - viii. ELCT 371 - Electronics
 - ix. ELCT 403 - Capstone Design Project I
 - x. ELCT 404 - Capstone Design Project II

Major GPA

Major GPA requirement policies are described in the College of Engineering and Computing section of this bulletin. For the purpose of these policies, the following courses are used to determine the Major GPA for the Electrical Engineering B.S.E. program: all Lower Division Engineering courses, all Electrical Engineering Major courses, and all Career Plan Elective courses.