Program of Study

Degree Requirements (126-139 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): 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:** No college-required courses for this program.

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. Career Plan Electives include all ELCT courses numbered 499 and higher. Up to 6 hours of non-ELCT courses may be used to satisfy Career Plan Electives with department approval; 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

Program GPA

Program 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 Program 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.