

Bachelor of Science in Electrical Engineering

Required 126 credits (36 of which must be number 300 or above) including:

I. Essential Studies Requirements (see University ES listing).

II. Electrical Engineering required courses

| Code | Title | Credits |
|------------------|---|---------|
| EE 101 | Introduction to Electrical Engineering | 3 |
| EE 111 | Digital Circuits | 3 |
| EE 111L | Digital Circuits Laboratory | 1 |
| EE 211 | Embedded Systems | 3 |
| EE 221 | Electric Circuits I | 3 |
| EE 221L | Electric Circuits I Laboratory | 1 |
| EE 222 | Electric Circuits II | 3 |
| EE 222L | Electric Circuits II Laboratory | 1 |
| EE 292 | Sophomore Design | 3 |
| EE 301 | Electric Drives | 3 |
| EE 321 & 321L | Electronics I and Electronics Laboratory I | 4 |
| EE 321L | Electronics Laboratory I | 1 |
| EE 322 | Electronics II | 3 |
| EE 330 | Electric and Magnetic Fields | 3 |
| EE 331 | Electromagnetic Waves | 3 |
| EE 350 | Fundamentals of Controls | 3 |
| EE 360 | Signals and Systems | 3 |
| EE 385 | Engineering Data Analysis | 3 |
| EE 392 | Junior Design | 3 |
| EE 492 | Senior Design I | 3 |
| EE 493 | Senior Design II | 3 |
| Total Credits | | 56 |

III. Program Required Electives

| Code | Title | Credits |
|----------------------------------|-------|---------|
| Technical Electives ² | | 15 |
| Total Credi | ts | 15 |

IV. College of Engineering and Mines requirements

| Code | Title | Credits |
|---------------|---------------------------------------|---------|
| CSCI 160 | Computer Science I | 4 |
| ENGR 340 | Professional Integrity in Engineering | 3 |
| ENGR 460 | Engineering Economy | 3 |
| Total Credits | | 10 |

IV. Requirements outside of the College of Engineering and Mines

| Code | Title | Credits |
|-------------------------|---|---------|
| MATH 165 | Calculus I | 4 |
| MATH 166 | Calculus II | 4 |
| MATH 207 | Introduction to Linear Algebra | 2 |
| MATH 265 | Calculus III | 4 |
| MATH 266 | Elementary Differential Equations | 3 |
| PHYS 251 | University Physics I | 4 |
| or PHYS 251C & 251CL | University Physics I and University Physics I Lab | |
| PHYS 252 | University Physics II | 4 |

or PHYS 252C University Physics II & 252CL and University Physics II Lab

| Total Credits | |
|------------------------------------|---|
| Math/Science Elective ³ | 3 |

- Grade of "C" or better in all EE courses is required for graduation.

 At least 9 credit hours of Technical Electives must be selected from among courses administered by SEECS at the 300 level or above. Remaining Technical Electives may be selected from courses in CEM, Mathematics, or Physics at the 300 level or above as approved by the student's advisor. Math 308 History of Math does not meet the requirements of the Technical Electives. A maximum of three credits of EE 490 Electrical Engineering Problems is allowed as an independent study, it can count towards one of the Electrical Engineering or non-Electrical Engineering elective requirements, it cannot be double counted. 2 credits of EECS 397 Cooperative Education (40 hours/week) is equivalent to 3 credits of the EE Electives with S/U grading, maximum 4 credits of EECS 397 is equivalent to maximum of 6 credits of EE Elective.
- The Math/Science elective must be selected from among courses in Mathematics, Physics, Chemistry, Biology, or Geology that are not already required as part of the program.
- Students must ensure all appropriate pre-requisites are met prior to registering for all courses in the curriculum.

Some of the following courses may be waived by completing: ENGR 102

| Code | Title | Credits |
|----------|--|---------|
| EE 101 | Introduction to Electrical Engineering | 3 |
| EE 111 | Digital Circuits | 3 |
| EE 111L | Digital Circuits Laboratory | 1 |
| EECS 397 | Cooperative Education | 1-2 |