## **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
Technica	al Electives <sup>2</sup>	15
Total Cre	edits	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

Math/Science Elective <sup>3</sup>	3
or PHYS 252C University Physics II & 252CL and University Physics II Lab	

## **Total Credits**

Grade of "C" or better in all EE courses is required for graduation. 2 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.
- 3 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