

**Current****DEGREE: HONORS BACHELOR OF ELECTRICAL ENGINEERING****MAJOR: ELECTRICAL ENGINEERING****CURRICULUM**

Superior figures indicate year (1 = freshman, 2 = sophomore, 3 = junior, 4 = senior) and semester (F = fall, S = spring) in which the course should be taken.

**UNIVERSITY REQUIREMENTS**

ENGL 110 Critical Reading and Writing (minimum grade C-)	3 <sup>1F</sup>
First Year Experience (FYE)	0-4
Breadth Requirements	12
Discovery Learning Experience (DLE)	3
Multi-cultural Courses	3

**Major Requirements****Breadth Requirements** 21

The College of Engineering requires 21 total credits, which includes 9 additional credits above and beyond the 12 University Breadth Requirement credits. Coursework may include courses from the University Breadth Requirement list and the College of Engineering Supplemental Course list. See College of Engineering Breadth Requirements for a detailed description. For timely progress toward degree completion, 3 credits must satisfy the University multi-cultural requirement. All courses must be passed with a minimum grade of C-.

One of the following four courses must be taken: 3<sup>3F</sup>

- ENGL 301 Expository Writing
- ENGL 312 Written Communications in Business
- ENGL 410 Technical Writing
- ENGL 413 Topics in Professional Writing

EGGG 101 Introduction to Engineering (FYE)	2 <sup>1F</sup>
MATH 241 Analytic Geometry and Calculus A	4 <sup>1F</sup>
MATH 242 Analytic Geometry and Calculus B	4 <sup>1S</sup>
MATH 243 Analytic Geometry and Calculus C	4 <sup>2F</sup>
MATH 341 Differential Equations with Linear Algebra I	3 <sup>2S</sup>
MATH 342 Differential Equations with Linear Algebra II	3 <sup>3F</sup>
CHEM 103 General Chemistry	4 <sup>1F</sup>
PHYS 207 Fundamentals of Physics I	4 <sup>1S</sup>
PHYS 208 Fundamentals of Physics II	4 <sup>2F</sup>
CISC 106 General Computer Science for Engineers	3 <sup>1F</sup>
CISC 181 Introduction to Computer Science II	3 <sup>1S</sup>
CISC 220 Data Structures	3 <sup>2S</sup>
CPEG 202 Introduction to Digital Systems	3 <sup>1S</sup>
CPEG 222 Microprocessor Based Systems	4 <sup>2F</sup>
ELEG 205 Analog Circuits I	4 <sup>2F</sup>
ELEG 305 Signals and Systems	3 <sup>2S</sup>

**Revised****DEGREE: HONORS BACHELOR OF ELECTRICAL ENGINEERING****MAJOR: ELECTRICAL ENGINEERING****CURRICULUM**

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Discovery Learning Experience (DLE)	3
Multi-cultural Courses	3

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MATH 242 Analytic Geometry and Calculus B	4 <sup>1S</sup>
MATH 243 Analytic Geometry and Calculus C	4 <sup>2F</sup>
MATH 341 Differential Equations with Linear Algebra I	3 <sup>2S</sup>
MATH 342 Differential Equations with Linear Algebra II	3 <sup>3F</sup>
CHEM 103 General Chemistry	4 <sup>1F</sup>
PHYS 207 Fundamentals of Physics I	4 <sup>1S</sup>
PHYS 208 Fundamentals of Physics II	4 <sup>2F</sup>
CISC 106 General Computer Science for Engineers	3 <sup>1F</sup>
CISC 181 Introduction to Computer Science II	3 <sup>1S</sup>
CISC 220 Data Structures	3 <sup>2F</sup>
CPEG 202 Introduction to Digital Systems	3 <sup>1S</sup>
CPEG 222 Microprocessor Based Systems	4 <sup>2S</sup>
ELEG 205 Analog Circuits I	4 <sup>2F</sup>
ELEG 305 Signals and Systems	3 <sup>2S</sup>

ELEG 309 Electronic Circuit Analysis I	4 <sup>2S</sup>	ELEG 309 Electronic Circuit Analysis I	4 <sup>2S</sup>
ELEG 310 Random Signals and Noise	3 <sup>3S</sup>	ELEG 310 Random Signals and Noise	3 <sup>3S</sup>
ELEG 320 Field Theory I	4 <sup>3F</sup>	ELEG 320 Field Theory I	4 <sup>3F</sup>
ELEG 340 Solid State Electronics	3 <sup>3F</sup>	ELEG 340 Solid State Electronics	3 <sup>3F</sup>
ELEG 491 Ethics and Impacts of Engineering	2 <sup>4S</sup>	ELEG 491 Ethics and Impacts of Engineering	2 <sup>4S</sup>

Four of the following six foundation elective courses must be taken: 12

- ELEG 306 Digital Signal Processing
- ELEG 312 Electronic Circuit Analysis II
- ELEG 341 Solid State Electronics II
- ELEG 403 Communication Systems Engineering
- ELEG 413 Field Theory II
- ELEG 418 Digital Control Systems

Three of the following five foundation elective courses must be taken: 3S, 4F 9

- ELEG 306 Digital Signal Processing
- ELEG 312 Electronic Circuit Analysis II
- ELEG 403 Communication Systems Engineering
- ELEG 413 Field Theory II
- ELEG 418 Digital Control Systems

Design Requirement (DLE) 4<sup>4</sup>

In addition to the content of the normal program, every student must take at least four credits in ELEG courses designated as "design." Regularly offered design courses include ELEG 410, ELEG 450 and ELEG 456. Other courses may be offered periodically which satisfy the design requirement. Students should consult with their advisor before selecting their design course or courses.

Design Requirement (DLE) 6<sup>4F&S</sup>

In addition to the content of the normal program, every student must take at least six credits in ELEG course designated as "design." Regularly offered ELEG design courses include ELEG 498 offered in the fall and ELEG 499 offered in the spring.

Technical Electives 15

In addition to the design requirement, each student, in consultation with their advisor, must select a program of technical electives satisfying the following: (1) With some exceptions, technical electives consist of 300-level or above engineering, mathematics, natural sciences, and computer science courses. With the permission of the student's advisor, certain 200-level courses, such as PHYS 211, are permitted. (2) At least 15 technical elective credits must be taken. (3) Of the 15 technical elective credits, at least 9 must be in CPEG or ELEG courses. (4) Of the 9 credits in ELEG or CPEG, at least 6 must be in 400-level or above ELEG or CPEG courses.

Technical Electives 15

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**CREDITS TO TOTAL A MINIMUM OF 126**

**CREDITS TO TOTAL A MINIMUM OF 125**

### HONORS BACHELOR OF ELECTRICAL ENGINEERING

A recipient of the Honors Bachelor of Electrical Engineering must satisfy the following:

1. All requirements for the Bachelor of Electrical Engineering degree.
  2. All generic University requirements for the Honors Degree.
- Graduate courses approved for this purpose by the department may be counted as Honors courses