

# ELECTRICAL ENGINEERING, BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Minimum Total Credit Hours: 125

Overall GPA - Combined and OU: 2.00

Major GPA - Combined and OU: 2.00

Curriculum GPA - Combined and OU: 2.00

Program Code: B350

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single foreign language are required; this may be satisfied by successful completion of 2 years in a single foreign language in high school. Students who must take foreign language at the University will have an additional 6-10 hours of coursework.

Course	Title	Credit Hours
<b>Freshman</b>		
<b>First Semester</b>		
ENGL 1113	Principles of English Composition (Core I)	3
CHEM 1315	General Chemistry (Core II) <sup>1</sup>	5
HIST 1483 or HIST 1493	United States, 1492 to 1865 (Core IV) or United States, 1865 to the Present	3
MATH 1914	Differential and Integral Calculus I (Core I) <sup>2</sup>	4
ENGR 1411	Freshman Engineering Experience <sup>3</sup>	1
Credit Hours		16
<b>Second Semester</b>		
ENGL 1213 or EXPO 1213	Principles of English Composition (Core I) or Expository Writing	3
MATH 2924	Differential and Integral Calculus II <sup>2</sup>	4
P SC 1113	American Federal Government (Core III)	3
PHYS 2514	General Physics for Engineering and Science Majors (Core II)	4
C S 1313	Programming for Non-Majors with C	3
Credit Hours		17
<b>Sophomore</b>		
<b>First Semester</b>		
MATH 2934	Differential and Integral Calculus III <sup>2</sup>	4
PHYS 2524	General Physics for Engineering and Science Majors	4
ECE 2214	Digital Design	4
ENGR 2002	Professional Development	2
Approved Elective, Social Science (Core III) <sup>4</sup>		3
Credit Hours		17
<b>Second Semester</b>		
MATH 3113	Introduction to Ordinary Differential Equations	3
ECE 2713	Digital Signals and Filtering	3

ECE 2723	Electrical Circuits I	3
ECE 2523	Probability, Statistics and Random Processes	3
Approved Elective, Artistic Forms (Core IV) <sup>4</sup>		3
Credit Hours		15

## Junior

### First Semester

PHYS 3223	Modern Physics for Engineers	3
ECE 3613	Electromagnetic Fields I	3
ECE 3723	Electrical Circuits II	3
ECE 3773	Electrical and Computer Engineering Circuits Laboratory	3
ECE 3813	Introductory Electronics	3
Credit Hours		15

### Second Semester

MATH 3333	Linear Algebra I	3
ECE 3113	Energy Conversion I	3
ECE 3223	Microprocessor System Design	3
ECE 3793	Signals and Systems	3
ECE 3873	Electrical and Computer Engineering Electronics Laboratory	3
Credit Hours		15

## Senior

### First Semester

ECE 3323	Introduction to Solid State Electronic Devices	3
ECE 4273	Digital Design Laboratory	3
ECE 4000-level or higher Elective <sup>5</sup>		3
ECE 4000-level or higher Elective <sup>5</sup>		3
Approved Elective, Western Civ. & Culture (Core IV) <sup>4</sup>		3
Credit Hours		15

### Second Semester

ECE 4773	Laboratory (Special Projects) (Capstone)	3
ECE Elective <sup>5</sup>		3
ECE 4000-level or higher Elective <sup>5</sup>		3
Professional Elective <sup>5</sup>		3
Approved Elective, Non-Western Culture (Core IV) <sup>4</sup>		3
Credit Hours		15
Total Credit Hours		125

<sup>1</sup> CHEM 1315 can be substituted with CHEM 1335 (Fall only).

<sup>2</sup> MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.

<sup>3</sup> Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

<sup>4</sup> To be chosen from the University-Wide General Education Approved Course List. Three of these 12 hours must be upper-division(3000-4000). See list in the Class Schedule.

<sup>5</sup> Electives to be selected from list available in the ECE Office, DEH-150.

Courses designated as Core I, II, III, IV or Capstone are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.