

REQUIREMENTS FOR THE BACHELOR OF SCIENCE

GALLOGLY COLLEGE OF ENGINEERING

THE UNIVERSITY OF OKLAHOMA

Academic Year
For Students Entering the Oklahoma State System for Higher Education Summer 2025 through Spring 2026

General Requirements	
Minimum Total Credit Hours	126
Minimum Retention/Graduation Grade Point Averages:	
Overall - Combined and OU	2.00
Major - Combined and OU	2.00
Curriculum - Combined and OU	2.00

Program
Electrical Engineering
B350
Bachelor of Science

OU encourages students to complete at least 32 hours of applicable coursework each year to have the opportunity to graduate in 4 years.

GENERAL EDUCATION AND COLLEGE REQUIREMENTS

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student's major. **Courses graded P/NP will not apply.**

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

Code	Title	Credit Hours
Core Area I: Symbolic and Oral Communication		
<i>English Composition</i>		
ENGL 1113	Principles of English Composition	3
ENGL 1213	Principles of English Composition	3
or EXPO 1213	Expository Writing	
<i>Language (0-10 hours in the same language)</i>		
This requirement can be met by two years of the same language in high school:		0-10
Beginning Course (0-5 hours)		
Beginning Course, continued (0-5 hours)		
<i>Mathematics</i>		
MATH 1914	Differential and Integral Calculus I (Core I) ^{1, 2}	4
Core Area II: Natural Science (including one laboratory)		
PHYS 2514	General Physics for Engineering and Science Majors (Core II) ²	4
CHEM 1315	General Chemistry (Core II-Lab) ²	5
or CHEM 1335	General Chemistry I: Signature Course	
Core Area III: Social Science		
P SC 1113	American Federal Government	3
Choose one course ³		3
Core Area IV: Arts & Humanities		
<i>Artistic Forms</i>		
Choose one course ³		3
<i>Western Culture</i>		
HIST 1483	United States to 1865	3
or HIST 1493	United States, 1865 to the Present	
Choose one course (excluding HIST 1483 and HIST 1493) ³		3
<i>World Culture</i>		
Choose one course ³		3
Core Area V: First-Year Experience		
ENGR 1413	Pathways to Engineering Thinking (Core V-FYE) ⁴	3
Total Credit Hours		40-50

- MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
- Major support requirements that also satisfy University General Education requirements.
- To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.
- Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.

FREE ELECTIVES

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

Bachelor of Science in Electrical Engineering accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Program Criteria.

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.

MAJOR REQUIREMENTS

Code	Title	Credit Hours
Required Courses		
ECE 2214	Digital Design	4
ECE 2713	Digital Signals and Filtering	3
ECE 2723	Electrical Circuits I	3
ECE 2523	Probability, Statistics and Random Processes	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
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
ECE 3323	Introduction to Solid State Electronic Devices	3
ECE 4273	Digital Design Laboratory	3
ECE 4773	Laboratory (Special Projects)	3
ECE Electives		
Choose three 4000-level or higher ECE electives ¹		9
Choose one ECE course from approved list ¹		3
Total Credit Hours		58

- Electives to be selected from list available in the ECE Office, DEH-150.

MAJOR SUPPORT REQUIREMENTS

Code	Title	Credit Hours
Math and Science		
MATH 2924	Differential and Integral Calculus II	4
MATH 2934	Differential and Integral Calculus III	4
MATH 3113	Introduction to Ordinary Differential Equations	3
MATH 3333	Linear Algebra I	3
PHYS 2524	General Physics for Engineering and Science Majors	4
PHYS 3223	Modern Physics for Engineers	3
Professional Elective		
Choose 2-hour course from an approved list maintained by the department		2
Additional College Requirements		
ENGR 2002	Professional Responsibilities and Skills of Engineers and Scientists	2
C S 1313	Programming for Non-Majors with C	3
Total Credit Hours		28

More information in the catalog: (<http://ou-public.courseleaf.com/gallogly-engineering/electrical-computer-engineering/electrical-engineering-bachelor-science/>).

SUGGESTED SEMESTER PLAN OF STUDY

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

Year	FIRST SEMESTER		Hours	SECOND SEMESTER		Hours
FRESHMAN	ENGL 1113	Principles of English Composition (Core I)	3	ENGL 1213 or EXPO 1213	Principles of English Composition (Core I) or Expository Writing	3
	CHEM 1315	General Chemistry (Core II-Lab) ¹	5	MATH 2924	Differential and Integral Calculus II ²	4
	HIST 1483 or HIST 1493	United States to 1865 (Core IV-HIST) or United States, 1865 to the Present	3	PHYS 2514	General Physics for Engineering and Science Majors (Core II)	4
	MATH 1914	Differential and Integral Calculus I (Core I-MATH) ²	4	C S 1313	Programming for Non-Majors with C	3
	ENGR 1413	Pathways to Engineering Thinking (Core V-FYE) ³	3			
	CREDIT HOURS		18	CREDIT HOURS		14
SOPHOMORE	MATH 2934	Differential and Integral Calculus III ²	4	MATH 3113	Introduction to Ordinary Differential Equations	3
	PHYS 2524	General Physics for Engineering and Science Majors	4	ECE 2713	Digital Signals and Filtering	3
	ECE 2214	Digital Design	4	ECE 2723	Electrical Circuits I	3
	ENGR 2002	Professional Responsibilities and Skills of Engineers and Scientists	2	ECE 2523	Probability, Statistics and Random Processes	3
		Approved Elective, Social Science (Core III-SS) ⁴	3	P SC 1113	American Federal Government (Core III)	3
					Approved Elective, Artistic Forms (Core IV-AF) ⁴	3
	CREDIT HOURS		17	CREDIT HOURS		18
JUNIOR	PHYS 3223	Modern Physics for Engineers	3	MATH 3333	Linear Algebra I	3
	ECE 3613	Electromagnetic Fields I	3	ECE 3113	Energy Conversion I	3
	ECE 3723	Electrical Circuits II	3	ECE 3223	Microprocessor System Design	3
	ECE 3773	Electrical and Computer Engineering Circuits Laboratory	3	ECE 3793	Signals and Systems	3
	ECE 3813	Introductory Electronics	3	ECE 3873	Electrical and Computer Engineering Electronics Laboratory	3
	CREDIT HOURS		15	CREDIT HOURS		15
SENIOR	ECE 3323	Introduction to Solid State Electronic Devices	3	ECE 4773	Laboratory (Special Projects)	3
	ECE 4273	Digital Design Laboratory	3		ECE Elective ⁵	3
		ECE 4000-level or higher Elective ⁵	3		ECE 4000-level or higher Elective ⁵	3
		ECE 4000-level or higher Elective ⁵	3		Professional Elective ⁵	2
		Approved Elective, Western Culture (Core IV-WC) ⁴	3		Approved Elective, World Culture (Core IV-WDC) ⁴	3
	CREDIT HOURS		15	CREDIT HOURS		14

¹ CHEM 1315 can be substituted with CHEM 1335 (Fall only).

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

³ Transfer students will need to meet the requirements of the first-year experience course as well as the engineering transfer course. Please see your advisor for your specific enrollment.

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

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

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