REQUIREMENTS FOR THE BACHELOR OF SCIENCE
GALLOGLY COLLEGE OF ENGINEERING
THE UNIVERSITY OF OKLAHOMA

Academic Year	General Requirements		Program
For Students Entering the Oklahoma State System for Higher Education **Summer 2024 through Spring 2025**	Minimum Total Credit Hours .... **128** **Minimum Retention/Graduation Grade Point Averages:** Overall - Combined and OU .... **2.00** Major - Combined and OU .... **2.00** Curriculum - Combined and OU **2.00**		**Computer Engineering** **B225** 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.

Minimum Total Credit Hours: 128

Overall GPA - Combined and OU: 2.00
Major GPA - Combined and OU: 2.00
Curriculum GPA - Combined and OU: 2.00

Program Code: B225

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		
English Composition		
ENGL 1113	Principles of English Composition	3
ENGL 1213	Principles of English Composition	3
or EXPO 1213	Expository Writing	
Language (0-10 hours in the same language)		
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)		
Mathematics		
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		
Artistic Forms		
Choose one course [3]		3
Western Culture		
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
World Culture		
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**

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

[2] Major support requirements that also satisfy University General Education requirements.

[3] 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.

[4] 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 Computer 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 3723	Electrical Circuits II	3
ECE 3773	Electrical and Computer Engineering Circuits Laboratory	3
ECE 3813	Introductory Electronics	3
ECE 3223	Microprocessor System Design	3
ECE 3793	Signals and Systems	3
ECE 3873	Electrical and Computer Engineering Electronics Laboratory	3
ECE 4273	Digital Design Laboratory	3
ECE 4613	Computer Architecture	3
ECE 4773	Laboratory (Special Projects)	3
Total Credit Hours		**40**

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
Technical Electives		
Choose two ECE/C S 3000-4000-level courses [1]		6
Choose two ECE/C S 4000-level or higher courses [1]		6
Professional Elective		
Choose one course from approved list maintained by the department [1]		2
Additional College Requirements		
ENGR 2002	Professional Responsibilities and Skills of Engineers and Scientists	2
C S 1323	Introduction to Computer Programming for Programmers	3
C S 2334	Programming Structures and Abstractions	4
C S 2813	Discrete Structures	3
C S 2414	Data Structures	4
Total Credit Hours		**48**

[1] Electives to be selected from list available in the ECE Office, DEH-150. **Note:** One of the four technical electives must be an approved ECE course.

More information in the catalog: (http://ou-public.courseleaf.com/gallogly-engineering/electrical-computer-engineering/computer-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
	MATH 1914	Differential and Integral Calculus I (Core I) [2]	4	PHYS 2514	General Physics for Engineering and Science Majors (Core II)	4
	HIST 1483 or HIST 1493	United States to 1865 (Core IV) or United States, 1865 to the Present	3	C S 1323	Introduction to Computer Programming for Programmers	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	C S 2414	Data Structures	4
	C S 2334	Programming Structures and Abstractions	4	C S 2813	Discrete Structures	3
	ECE 2214	Digital Design	4	ECE 2713	Digital Signals and Filtering	3
	P SC 1113	American Federal Government (Core III)	3	ECE 2723	Electrical Circuits I	3
				ENGR 2002	Professional Responsibilities and Skills of Engineers and Scientists	2
		CREDIT HOURS	**19**		**CREDIT HOURS**	**18**
JUNIOR	ECE 2523	Probability, Statistics and Random Processes	3	ECE 3223	Microprocessor System Design	3
	ECE 3723	Electrical Circuits II	3	ECE 3793	Signals and Systems	3
	ECE 3773	Electrical and Computer Engineering Circuits Laboratory	3	ECE 3873	Electrical and Computer Engineering Electronics Laboratory	3
	ECE 3813	Introductory Electronics	3	MATH 3333	Linear Algebra I	3
		Approved Elective, Social Science (Core III-SS) [4]	3		Approved Elective, Artistic Forms (Core IV-AF) [4]	3
		CREDIT HOURS	**15**		**CREDIT HOURS**	**15**
SENIOR	ECE 4273	Digital Design Laboratory	3	ECE 4773	Laboratory (Special Projects)	3
	ECE 4613	Computer Architecture	3		ECE/CS 4000- or higher level Elective [5]	3
		Professional Elective [5]	2		ECE/CS 4000- or higher level Elective [5]	3
		ECE/CS 3000-4000-level Elective [5]	3		ECE/CS 3000-4000-level Elective [5]	3
		Approved Elective, Western Culture (Core IV-WC) [4]	3		Approved Elective, World Culture (Core IV-WDC) [4]	3
		CREDIT HOURS	**14**		**CREDIT HOURS**	**15**

[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. **Note:** One of the four electives must be an approved ECE course.

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.