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 2023 through Spring 2024**	Minimum Total Credit Hours .... **129** **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 33 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		
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		
Choose one course [3]		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.

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]		3
Additional College Requirements		
ENGR 1411	Pathways to Engineering Thinking [2]	1
ENGR 2002	Professional Development	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 2413	Data Structures	3
Total Credit Hours		**49**

[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.

[2]Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

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

SUGGESTED SEMESTER PLAN OF STUDY

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.

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 1411	Pathways to Engineering Thinking [3]	1		Approved Elective: First-Year Experience (Core V) [4]	3
		CREDIT HOURS	**16**		**CREDIT HOURS**	**17**
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 2413	Data Structures	3
	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 Development	2
		CREDIT HOURS	**19**		**CREDIT HOURS**	**17**
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) [4]	3		Approved Elective, Artistic Forms (Core IV) [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]	3		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) [4]	3		Approved Elective, World Culture (Core IV) [4]	3
		CREDIT HOURS	**15**		**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 Engineering transfer students may take ENGR 3511 in place of ENGR 1411.

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.