

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

Academic Year
For Students Entering the Oklahoma State System for Higher Education Summer 2021 through Spring 2022

General Requirements	
Minimum Total Credit Hours	147-150
Minimum Retention/Graduation Grade Point Averages:	
Overall - Combined and OU	3.25
Major - Combined and OU	3.25

Program
Computer Engineering/ Computer Science
A225/F235 Q147
Bachelor of Science/Master of Science

OU encourages students to complete at least 30 hours of applicable coursework each year to have the opportunity to graduate in 5 years.

B.S. Portion of the Program Accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>

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 language at the University will have an additional 6-10 hours of coursework.

Students are eligible to enter accelerated program after application is granted for unconditional enrollment in upper-division ECE courses and meeting minimum requirements, including a 3.50 retention and 3.50 combined retention grade point average. Students may enter the accelerated program based on the undergraduate degree pattern offered in the year they first enrolled in the Oklahoma State System of Higher Education or later.

Students are eligible for graduate status upon graduation with the Bachelor of Science in Computer Engineering.

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		First-Year Experience (Core V) ⁴	3
	ENGR 1411	Freshman Engineering Experience ³	1	C S 1323	Introduction to Computer Programming for Programmers	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	C S 3823	Theory of Computation	3	MATH 3333	Linear Algebra 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
	ECE 2523	Probability, Statistics and Random Processes	3		Approved Elective, Artistic Forms (Core IV) ⁴	3
	CREDIT HOURS		15	CREDIT HOURS		15
SENIOR	C S 3113	Introduction to Operating Systems	3	ECE 4773	Laboratory (Special Projects)	3
	C S 4413	Algorithm Analysis	3		C S G4000/5000 Approved Elective ⁶	3
	ECE 4273	Digital Design Laboratory	3	ECE 4613	Computer Architecture	3
		ECE G4000 or higher Elective ⁵	3		Approved Elective, Social Science (Core III) ⁴	3
		Approved Elective, Western Culture (Core IV) ⁴	3		Approved Elective, World Culture (Core IV) ⁴	3
	CREDIT HOURS		15	CREDIT HOURS		15
FIFTH YEAR	C S 4513	Database Management Systems	3		5000-level Approved Elective ⁶	3
		5000-level Approved Elective ⁶	3		5000-level C S Elective ⁷	0-9
		5000-level C S Elective ⁷	3	C S 5980	Research for Master's Thesis	0-6
	CREDIT HOURS		9	CREDIT HOURS		9-12

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.

⁶ Students must choose three courses (9 hours) from an approved list of courses maintained by the School of Computer Science.

⁷ Thesis option requires a total of 6 hours of 5000-level electives and 6 hours of C S 5980. Non-thesis option requires a total of 15 hours of 5000-level electives.

No more than three credit hours of C S 5990 allowed. Outside courses require approval from the School of Computer Science.

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.