BS in Computer Engineering

Program Requirements

A minimum total of 124 credit hours is required for the computer engineering program and includes the 66 credit hours of major courses that must be completed with a minimum grade point average of 2.000. All courses that are prerequisites to other courses must be completed with a grade of *C-* or better. In addition to meeting the requirements of the WSU General Education Program (http://catalog.wichita.edu/undergraduate/academic-information/general-education-program/) and the requirements of the College of Engineering, students in the computer engineering program must take the following courses:

Course	Title	Hours
General Education (34-35 credit hours)		
Select courses to meet General Education requirements [1,2]		24
General Education courses that will also meet Program Requirements		
PHIL 354	Ethics and Computers	3
PHYS 314	Physics for Scientists II	4
PHYS 316	University Physics Lab II	1
MATH 242	Calculus I	5
Mathematical/Natural Sciences		
MATH 243	Calculus II [3]	5
MATH 321	Discrete Structures I	3
or CS 321	Discrete Structures I	
MATH 511	Linear Algebra	3
MATH 555	Differential Equations I	3
PHYS 313	Physics for Scientists I [3]	4
IME 254	Engineering Probability and Statistics I	3
Major Courses		
ECE 115	ECE Freshman Seminar	0
ECE 194	Introduction to Digital Design	4
CS 211	Introduction to Programming	4
ECE 238	Assembly Language Programming for Engineers	3
IME 255	Engineering Economy	3
ECE 282	Circuits I	4
ECE 284	Circuits II	3
ECE 285L	Programming with MATLAB for Electrical and Computer Engineers	1
CS 311	Object-Oriented Programming	4
ECE 338	FPGA-Based System Design	4
ECE 394	Introduction to Computer Architecture	3
ME 398	Thermodynamics I	3
CS 400	Data Structures	4
CS 664	Computer Networks	3
ECE 492	Electronic Circuits I	4
ECE 594	Microprocessor System Design	4
ECE 585 & ECE 595	Senior Design Project I and Senior Design Project II	4
Technical Electives		
Select 11 credit hours which must be chosen with advisor's approval from a departmentally approved list. At least 9 of the 11 credit hours must be from the ECE department. Up to 2 credit hours of co-op can be used as nondepartmental technical electives.		11
Total Credit Hours		**124**

[1] Required major courses may also count towards General Education requirements. Students will need to select additional electives to reach 124 credit hours required for graduation with assistance from an advisor.

[2] See the requirements of the WSU General Education program (http://catalog.wichita.edu/undergraduate/academic-information/general-education-program/). Starting in fall 2024, first-year college students must take a First-Year Seminar (FYS) within their first two semesters at WSU. The FYS course should be completed in either fine arts or humanities or social/behavioral sciences.

[3] May count as a general education course.

Applied Learning

Students in the Bachelor of Science in computer engineering program are required to complete an applied learning or research experience to graduate from the program. The requirement can be met by completing the two capstone design experiences consisting of ECE 585 and ECE 595.