COMPUTER ENGINEERING, BSCP

Requirements for Students Matriculating in or before Academic Year 2024-2025. Learn more about University Academic Regulation 3.1 (http://catalog.okstate.edu/university-academic-regulations/#matriculation).

Minimum Overall Grade Point Average: 2.00
Total Hours: 125

Code	Title	Hours
General Education Requirements		
All General Education coursework requirements are satisfied upon completion of this degree plan		
English Composition		
ENGL 1113	Composition I [1]	3
or ENGL 1313	Critical Analysis and Writing I	
ENGL 3323	Technical Writing	3
American History & Government		
Select one of the following:		3
HIST 1103	Survey of American History	
HIST 1483	American History to 1865 (H)	
HIST 1493	American History Since 1865 (DH)	
POLS 1113	American Government	3
Analytical & Quantitative Thought (A)		
MATH 2144	Calculus I (A) (With a grade of "C" or better)	4
MATH 2153	Calculus II (A) (With a grade of "C" or better)	3
MATH 2163	Calculus III (With a grade of "C" or better)	3
Humanities (H)		
Courses designated (H)		6
Natural Sciences (N)		
Must include one Laboratory Science (L) course		
CHEM 1414	General Chemistry for Engineers (LN)	4
or CHEM 1515	Chemistry II (LN)	
PHYS 2014	University Physics I (LN) (With a grade of "C" or better)	4
PHYS 2114	University Physics II (LN) (With a grade of "C" or better)	4
Social & Behavioral Sciences (S)		
Course designated (S)		3
Hours Subtotal		**43**
Diversity (D) & International Dimension (I)		
May be completed in any part of the degree plan		
Select at least one Diversity (D) course		
Select at least one International Dimension (I) course		
College/Departmental Requirements		
UNIV 1111	First Year Seminar (or other approved first year seminar course)	1
Mathematics		
MATH 2233	Differential Equations (With a grade of "C" or better)	3
Engineering Science		
ECEN 3213	Computer Based Systems in Engineering (With a grade of "C" or better)	3
ENSC 2611	Electrical Fabrication Lab (With a grade of "C" or better)	1
Computer Science		
CS 1113	Computer Science I (A) (With a grade of "C" or better)	3
CS 2351	Unix Programming	1
CS 2433	C/C++ Programming (With a grade of "C" or better)	3
CS 3653	Discrete Mathematics for Computer Science (With a grade of "C" or better)	3
Electrical & Computer Engineering		
ECEN 2233	Fundamentals of Digital Logic Design (With a grade of "C" or better)	3
ECEN 2714	Fundamentals of Electric Circuits (With a grade of "C" or better)	4
Hours Subtotal		**25**
Major Requirements		
Mathematics		
MATH 3013	Linear Algebra (A) (With a grade of "C" or better)	3
Electrical & Computer Engineering		
ECEN 3314	Electronic Devices and Applications	4
ECEN 3513	Signal Analysis	3
ECEN 3613	Applied Fields and Waves I	3
ECEN 3714	Network Analysis (With a grade of "C" or better)	4
ECEN 3903	Introduction to Semiconductor Devices (With a grade of "C" or better in ECEN 3903 or PHYS 3313)	3
or PHYS 3313	Introduction to Semiconductor Device Physics	
ECEN 4013	Design of Engineering Systems	3
ECEN 4024	Capstone Design	4
ECEN 4213	Embedded Computer Systems Design	3
ECEN 4243	Computer Architecture	3
ECEN 4303	Digital Integrated Circuit Design	3
ECEN 4503	Applications of Probability and Statistics to Random Signals	3
Computer Science		
CS 4323	Design and Implementation of Operating Systems I	3
or ECEN 4283	Computer Networks	
CS 3353	Data Structures and Algorithm Analysis I (With a grade of "C" or better)	3
Industrial Engineering & Management		
IEM 3503	Engineering Economic Analysis	3
ECEN Electives		
Select two courses from the departmentally approved list and with advisor approval.		6
Hours Subtotal		**54**
Controlled Electives		
Select 3 hours of the following controlled electives:		3
ENSC 2113	Statics	

	ENSC 2123	Elementary Dynamics
	ENSC 2143	Strength of Materials
	ENSC 2213	Thermodynamics
	Engineering courses 3000 level and above	
	Other courses such as MATH, CS, STAT, etc., may be approved by advisor	
Hours Subtotal		**3**
Total Hours		**125**

[1]

If a “B” or higher is not earned in ENGL 1113 Composition I or ENGL 1313 Critical Analysis and Writing I, then ENGL 1213 Composition II or ENGL 1413 Critical Analysis and Writing II is also required (per Academic Regulation 3.5 (http://catalog.okstate.edu/university-academic-regulations/)).

Graduation Requirements

1. A minimum GPA of 2.00 Technical GPA. The Technical GPA is calculated from all courses in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.
2. A "C" or better in courses listed above as requiring a "C" or better.
3. The major engineering design experience, capstone course, is satisfied by ECEN 4013 Design of Engineering Systems and ECEN 4024 Capstone Design.

Additional State/OSU Requirements

- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.
- Degrees that follow this plan must be completed by the end of Summer 2030.