

# COMPUTER ENGINEERING, BSCP

**Requirements for Students Matriculating in or before Academic Year 2018-2019.** 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: 124**

Code	Title	Hours
<b>General Education Requirements</b>		
All General Education coursework requirements are satisfied upon completion of this degree plan		
<i>English Composition</i>		
ENGL 1113	Composition I <sup>1,2</sup>	3
ENGL 3323	Technical Writing	3
<i>American History &amp; Government</i>		
Select one of the following:		
HIST 1103	Survey of American History	3
HIST 1483	American History to 1865	3
HIST 1493	American History Since 1865	3
POLS 1113	American Government	3
<i>Analytical &amp; Quantitative Thought (A)</i>		
MATH 2144	Calculus I (A) <sup>2</sup>	4
MATH 2153	Calculus II (A) <sup>2</sup>	3
MATH 2163	Calculus III <sup>2</sup>	3
<i>Humanities (H)</i>		
Courses designated (H)		
6		
<i>Natural Sciences (N)</i>		
Must include one Laboratory Science (L) course		
CHEM 1414	General Chemistry for Engineers (LN) <sup>2</sup>	4
	or CHEM 1515 Chemistry II (LN)	
PHYS 2014	University Physics I (LN) <sup>2</sup>	4
<i>Social &amp; Behavioral Sciences (S)</i>		
Course designated (S)		
6		
<b>Hours Subtotal</b>		42
<b>Diversity (D) &amp; International Dimension (I)</b>		
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		
<b>College/Departmental Requirements</b>		
<i>Basic Science</i>		
PHYS 2114	University Physics II (LN) <sup>2</sup>	4
PHYS 3313	Introduction to Semiconductor Device Physics	3
<i>Mathematics</i>		
MATH 2233	Differential Equations <sup>2</sup>	3
<i>Engineering</i>		
ENGR 1111	Introduction to Engineering <sup>2</sup>	1
<i>Engineering Science</i>		
ENSC 3213	Computer Based Systems in Engineering <sup>2</sup>	3

## Computer Science

CS 1113	Computer Science I (A) <sup>2</sup>	3
CS 2133	Computer Science II <sup>2</sup>	3
CS 2351	Unix Programming <sup>2</sup>	1
CS 3653	Discrete Mathematics for Computer Science	3

## Electrical & Computer Engineering

ECEN 2714	Fundamentals of Electric Circuits <sup>2</sup>	4
ECEN 3233	Digital Logic Design <sup>2</sup>	3

**Hours Subtotal** 31

## Major Requirements

### Mathematics

MATH 3013	Linear Algebra	3
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### Electrical & Computer Engineering <sup>3</sup>

ECEN 3314	Electronic Devices and Applications	4
ECEN 3513	Signal Analysis	3
ECEN 3613	Electromagnetic Fields	3
ECEN 3714	Network Analysis	4
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	Random Signals and Noise	3

### Computer Science <sup>3</sup>

CS 4323	Design and Implementation of Operating Systems I	3
	or ECEN 4283 Computer Networks	
CS 3353	Data Structures and Algorithm Analysis I	3

### Industrial Engineering & Management

IEM 3503	Engineering Economic Analysis	3
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### Electives <sup>3</sup>

Select 3 hours selected from combinations on the departmentally approved list and approved by advisor		3
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**Hours Subtotal** 48

## Controlled Electives

Select 3 hours of the following technical electives:		3
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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** 124

<sup>1</sup> If a "B" or higher is not earned in ENGL 1113 Composition I, 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>)).

<sup>2</sup> Courses that must be completed prior to admission to professional school.

<sup>3</sup> A minimum GPA of 2.20 is required in all courses applied to Major Requirements indicated.

## Other Requirements

### Admission to Professional School (required)

- Refer to the OSU Catalog corresponding to your matriculation date for detailed admissions requirements.

### Graduation Requirements

1. A minimum GPA of 2.00 is required in all courses applied to Major Requirements including ENGL 3323 Technical Writing, 3 hours of (S), and 6 hours of (H).
2. 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 2024.