COMPUTER ENGINEERING, BSCP

Program pending OSRHE approval for the 2020-2021 Academic Year

Requirements for Students Matriculating in or before Academic Year 2020-2021. 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

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENGL 1113</td>
<td>Composition I ¹</td>
<td>3</td>
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<tr>
<td>or ENGL 1313</td>
<td>Critical Analysis and Writing I</td>
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<tr>
<td>ENGL 3323</td>
<td>Technical Writing</td>
<td>3</td>
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American History & Government
Select one of the following: 3

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<tr>
<td>HIST 1103</td>
<td>Survey of American History</td>
<td>3</td>
</tr>
<tr>
<td>HIST 1483</td>
<td>American History to 1865 (H)</td>
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<tr>
<td>HIST 1493</td>
<td>American History Since 1865 (DH)</td>
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<tr>
<td>POLS 1113</td>
<td>American Government</td>
<td>3</td>
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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
CHEM 1515 or Physical Chemistry (LN) 4
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
Mathematics
MATH 2233 Differential Equations (With a grade of 'C' or better) 3

Engineering
ENGR 1111 Introduction to Engineering 1

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 2714 Fundamentals of Electric Circuits (With a grade of 'C' or better) 4
ECEN 3233 Digital Logic Design (With a grade of 'C' or better) 3

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
ECEN 4283 Introduction to Semiconductor Device Physics 3

Hours Subtotal 6

Controlled Electives
Select six hours selected from combinations on the departmentally approved list and approved by advisor

Hours Subtotal 54

Industrial Engineering & Management
IEM 3503 Engineering Economic Analysis 3

Electives
Select 3 hours of the following controlled electives:

Controlled Electives 3

ENSC 2113 Statics 3
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

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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/](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 2026.