

Computer Engineering B.S. Degree 2017-2018 Curriculum Chart

Math Courses

MATH 19A
Calculus I

CMPE 16
Discrete Math

MATH 19B
Calculus II

AMS 10*
Engr. Math
Methods I
or
MATH 21
Linear Algebra

MATH 23A
Multivariable
Calculus

AMS 20
Engr. Math
Methods II

EE 103/L
Signals &
Systems

CMPE 107
Probability &
Statistics

** Strongly recommended*

Core Courses

CMPE 12/L
Computer
Systems &
Assembly Lang.

CMPE 121/L
Microprocessor
System Design

CMPS 12B/M
Data Structures

CMPE 13/L
Computer
Systems & C
Programming

CMPE 185 #
Technical Writing

CMPS 101
Algorithms &
Abstract Data
Types

CMPE 100/L
Logic Design

CMPE 110
Computer
Architecture

EE 101/L
Electronic Circuits

Science Courses

PHYS 5A/L
Mechanics

PHYS 5B/M
Waves & Optics
or
CMPE 9*
Statics, Dynamics, &
Biomechanics

PHYS 5C/N
Electricity & Magnetism

** CMPE 9 is recommended for the
Robotics & Control concentration*

Concentrations (choose one)

Systems Programming

CMPS 111
Operating Systems

CMPS 109
Advanced Programming
or
CMPS 115
Software Engineering

CMPE 150/L
Intro to Comp. Networks

One of the following:

- CMPS 104A
- CMPE 113
- CMPE 156/L

Elective*

Robotics & Control

Two of the following:

- CMPE 118/L
- CMPE 141
- CMPE 167/L

*Third course from above
or any course from
Approved List
on the UA website*

Elective*

Computer Systems

CMPS 111
Operating Systems

CMPE 125/L
Logic Design w/ Verilog
or
CMPE 122
Intro to VLSI Digital
System Design

CMPS 109
Advanced Programming
or
CMPS 115
Software Engineering

Elective*

Networks

CMPE 150/L
Intro to Comp. Networks

CMPE 156/L
Network Programming

CMPS 111
Operating Systems

CMPE 151/L
Advanced Networks
or
Elective*

Digital Hardware

CMPE 125/L
Logic Design w/ Verilog

EE 171/L
Analog Electronics

One of the following:

- CMPE 122
- CMPE 202
- CMPE 222
- EE 173/L**

Elective*

**Electives can be an upper division or graduate course from Approved List on the UA website
**EE 173 requires the prerequisite EE 174*

Capstone (choose one option)

CMPE 123A, 123B
Capstone Project
I & II

**CMPE 129A, 129B,
& 129C**
Capstone Project
I, II, & III

**CMPS 115, 116, &
117**
Software Capstone
Project I, II, & III

**CMPE 129A or
CMPE 123A
&
CMPE 195: Senior
Thesis**

Exit Requirements

1. Portfolio
 2. Exit Survey
 3. Exit Interview
- See back for more info

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Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Approved List of Upper Division Electives

Please refer to the Undergraduate Advising website for the list of approved electives

Exit Requirements

1. Portfolio
<https://www.soe.ucsc.edu/departments/computer-engineering/undergraduate/undergraduate-portfolio>
2. Exit Survey
<https://ua.soe.ucsc.edu/exit-survey>
3. Exit Interview

Notes:

- The School of Engineering has different major declaration deadlines than the UCSC Academic/Administrative calendar. Our deadlines and process can be found on: <https://ua.soe.ucsc.edu/declare-your-major>
- All students admitted to a School of Engineering major, or seeking admission to a major, must take all courses required for that major for a letter grade.
- Courses in which you receive a grade of C-, D+, D, or D- earn credit toward graduation, but cannot be used to satisfy a major requirement or a general education requirement, and cannot satisfy a prerequisite for another course.
- In addition to this list, any 5-unit CE, CS, or EE graduate course (200+) may also be used as an elective.
- At most, only one elective may be substituted by an upper-division individual or field study (CMPE, CMPS, EE 193 or 198) with approval.

Student Name: _____

Staff Advisor: _____

Faculty Advisor: _____

I have discussed the BS/MS program with my advisor.