Computer Engineering B.S. Degree
2019-2020 Curriculum Chart

Math Courses
- MATH 19A Calculus I
- MATH 19B Calculus II
- MATH 23A Vector Calculus
- AM 30 Multivariate Calculus for Engineers
- ECE 103/L Signals & Systems
- CSE 16 Discrete Math
- AM 10* Eng. Math Methods I
- MATH 21 Linear Algebra
- AM 20 Eng. Math Methods II
- CSE 107 Probability & Statistics

Core Courses
- CSE 20 Beginning Programming in Python
- CSE 13E Embedded Systems & C Programming
- CSE 13S Computer Systems & C Programming
- CSE 120 Computer Architecture
- CSE 101 Algorithms & Abstract Data Types
- CSE 121/L Microprocessor System Design
- ECE 101/L Electronic Circuits

Science Courses
- PHYS 5A/L Mechanics
- PHYS 5B/M Waves & Optics
- PHYS 5C/N Electricity & Magnetism

Concentrations (choose one)
- System Programming
  - CSE 131
  - CSE 130
- Robotics & Control
  - Two of the following:
    - ECE 118/L
    - ECE 141
    - ECE 167/L
  - Third course from above or any course from Robotics and Control Elective List on the UA website
- Computer Systems
  - CSE 131
  - CSE 130
- Networks
  - CSE 150/L
  - CSE 156/L
- Digital Hardware
  - CSE 125/L
  - ECE 171/L
  - ECE 173/L

Elective List
- CSE 123A, 123B Eng. Design I & II
- CSE129A, 129B & 129C Capstone Project I, II, & III
- CSE 115A, 115B, & 115C Software Capstone Project I, II, & III
- CSE 195 Senior Thesis
- ECE 118/L $ Intro to Mechatronics

Capstone (choose one option)
- CSE 115A, 115B, & 115C Software Capstone Project I, II, & III
- CSE 195 Senior Thesis
- ECE 118/L $ Intro to Mechatronics

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

* Electives can be chosen from the Computer Engineering Elective list on the UA website
** ECE 173 requires the prerequisite ECE 174
*** CSE 222/A (with department approval)

S ECE 118/L only allowed as Capstone course if it is not used as a concentration course

# Satisfies the DC requirement

https://undergrad.soe.ucsc.edu/ • advising@soe.ucsc.edu • (831) 459-5840 • 08/09/2019
# Computer Engineering B.S. Degree
### 2019-2020 Curriculum Chart

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## Upper Division Electives
Please refer to the Undergraduate Advising website for the list of approved electives

Computer Engineering Electives: [https://undergrad.soe.ucsc.edu/computer-engineering-electives](https://undergrad.soe.ucsc.edu/computer-engineering-electives)

Robotics and Control Electives: [https://undergrad.soe.ucsc.edu/robotics-and-control-elective-list](https://undergrad.soe.ucsc.edu/robotics-and-control-elective-list)

## Exit Requirements
1. Portfolio
   [https://www.soe.ucsc.edu/departments/computer-science-and-engineering-cse/computer-engineering/undergraduate/undergraduate](https://www.soe.ucsc.edu/departments/computer-science-and-engineering-cse/computer-engineering/undergraduate/undergraduate)
2. Exit Survey
   [https://undergrad.soe.ucsc.edu/exit-survey](https://undergrad.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://undergrad.soe.ucsc.edu/declare-your-major](https://undergrad.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.
- At most, only one elective upon prior approval may be substituted by an upper-division individual or field study (CSE/ECE 193 or 198). Approval is determined by the department via Course Substitution Petition.

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**Student Name:**

**Staff Advisor:**

**Faculty Advisor:**

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

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