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
- CSE 16 Discrete Math
- AM 10* Engr. Math Methods I or MATH 21 Linear Algebra
- AM 20 Engr. Math Methods II
- CSE 107 Probability & Statistics
- ECE 103/L Signals & Systems

Core Courses
- CSE 20 Beginning Programming in Python
- CSE 30 Programming Abstractions: Python
- CSE 100/L Logic Design
- CSE 185E # Technical Writing

Science Courses
- PHYS 5A/L Mechanics
- PHYS 5B/M Waves & Optics or ECE 9* Statics, Dynamics, & Biomechanics
- PHYS 5C/N Electricity & Magnetism

Concentrations (choose one)
System Programming
- CSE 131 or CSE 130
- CSE 111 or CSE 115A or CSE 134
- CSE 150/L

Robotics & Control
- Two of the following:
  - ECE 118/L Intro to Mechatronics
- Third course from above or any course from Robotics and Control Elective List on the UA website

Computer Systems
- CSE 131 or CSE 130
- CSE 125/L or CSE 122***
- CSE 111 or CSE 115A or CSE 134

Elective*

Networks
- CSE 150/L
- CSE 156/L
- CSE 131 or CSE 130

Digital Hardware
- CSE 125/L
- ECE 171/L or CSE 122***

- One of the following:
  - CSE 122 (if not satisfied above)**
  - CSE 220
  - ECE 171/L (if not satisfied above)
  - ECE 173/L**

- Elective*

Elective*

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

Capstone (choose one option)
- CSE 123A, 123B Eng. Design I & II
- CSE 129A, 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

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

https://undergrad.soe.ucsc.edu/  •  advising@soe.ucsc.edu  •  (831) 459-5840  •  07/19/2019
Computer Engineering B.S. Degree
2019-2020 Curriculum Chart

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Approved List of Upper Division Electives
Please refer to the Undergraduate Advising website for the list of approved electives
Upper Division Electives: https://undergrad.soe.ucsc.edu/curriculum-charts/ce-electives
Robotics and Control Electives:

Exit Requirements
1. Portfolio
   https://www.soe.ucsc.edu/departments/computer-science-and-engineering-css/computer-engineering/undergraduate/undergraduate
2. 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
- 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.

Student Name:
Staff Advisor:
Faculty Advisor:
☐ I have discussed the BS/MS program with my advisor.

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