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

Math Courses
- MATH 19A Calculus I
- MATH 19B Calculus II
- MATH 23A Multivariable Calculus
- EE 103/L Signals & Systems

Core Courses
- CMPE 12/L Computer Systems & Assembly Lang.
- CMPE 121/L Microprocessor Systems & C Programming
- CMPE 100/L Logic Design
- CMPE 110 Computer Architecture
- CMPS 12B/M Data Structures
- CMPS 101 Algorithms & Abstract Data Types
- 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

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
  - AMS 10* Engr. Math Methods I or MATH 21 Linear Algebra
  - AMS 20 Engr. Math Methods II
  - CMPE 107 Probability & Statistics

- 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*

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

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

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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.