Computer Engineering B.S. Degree
2021-2022 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**
  Engr. Math Methods I

- **AM 20**
  Engr. Math Methods II

- **CSE 107**
  Probability & Statistics

Core Courses

- **CSE 20**
  Beginning Programming in Python

- **CSE 30**
  Programming Abstractions: Python

- **CSE 100/L**
  Logic Design

- **CSE 185E #**
  Technical Writing

- **CSE 12**
  Computer Systems & Assembly Lang.

- **CSE 13S**
  Computer Systems & C Programming

- **CSE 120**
  Computer Architecture

- **CSE 101**
  Intro to Data Structures and Algorithms

- **CSE 121**
  Embedded System Design

- **ECE 101/L**
  Electronic Circuits

Science Courses

- **PHYS 5A/L**
  Mechanics

- **PHYS 5B/M**
  Waves & Optics

- **PHYS 5C/N**
  Electricity & Magnetism

- **ECE 9**
  Statics and Mechanics of Materials

Concentrations (choose one)

- **System Programming**
  - **CSE 130**
  - **CSE 111**
    - or **CSE 115A**
    - or **CSE 134**
  - **CSE 150/L**
  - One of the following:
    - **CSE 113**
    - **CSE 156/L**
    - **CSE 110A**
  - **CSE 151/L or Elective**

- **Computer Systems**
  - **CSE 130**

- **Networks**
  - **CSE 150/L**
  - **CSE 156/L**

- **Digital Hardware**
  - **CSE 125**
  - **ECE 171/L**
  - **ECE 122**
  - One of the following:
    - **CSE 122** (if not satisfied above)**
    - **CSE 220**
    - **ECE 171/L** (if not satisfied above)
    - **ECE 173/L**

- **Elective**
  Can be chosen from the Computer Engineering Elective list or the approved Digital Hardware Grad-Level Course List

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

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 Design Project I, II, & III

- **CSE 115A & 115D**
  Software Design Project (Accelerated)

- **CSE 157**
  Internet of Things

- **ECE 118 $**
  Intro to Mechatronics

- **CSE 195**
  Senior Thesis

- **Exit Requirements**
  1) Portfolio
  2) Exit Survey
  3) Exit Interview

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* Strongly recommended
# Satisfies the DC requirement

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$ ECE 118 only allowed as Capstone course if it is not used as an Elective
Computer Engineering B.S. Degree
2021-2022 Curriculum Chart

Fall _______  Winter _______  Spring _______  Summer _______

Fall _______  Winter _______  Spring _______  Summer _______

Fall _______  Winter _______  Spring _______  Summer _______

Fall _______  Winter _______  Spring _______  Summer _______

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

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:

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