Math Courses

**MATH 19A**
Calculus I

**MATH 19B**
Calculus II

**AMS 10***
Engr. Math Methods I

or

**MATH 21**
Linear Algebra

**AMS 20***
Engr. Math Methods II

or

**MATH 24**
Differential Equations

**MATH 23A**
Vector Calculus

**CMPE 16**
Discrete Math

* AMS 10 & 20 are strongly preferred. Students who complete Math 21 & 24 (or the equivalents) in lieu of AMS 10 & 20 are strongly encouraged to either take the MATLAB self-paced tutorial: [http://matlab-training.soe.ucsc.edu](http://matlab-training.soe.ucsc.edu), or CMPE 8, prior to enrolling into EE 101/L.

Science Courses

**PHYS 5A/L or 6A/L**
Mechanics

**PHYS 5C/N or 6C/N**
Electricity & Magnetism

Core Courses

**CMPE 12/L**
Computer Systems & Assembly Lang.

**CMPE 100/L**
Logic Design

**CMPE 13/L**
Computer Systems & C Programming

**CMPE 150/L**
Intro to Computer Networks

**CMPS 12B/M**
Data Structures

**CMPE 185#**
Technical Writing

**CMPS 101**
Algorithms & Abstract Data Types

or

**EE 101/L**
Electronic Circuits

* # Satisfies the DC requirement.

Electives

Choose from Approved List of Upper Division Electives from the back.

1. _______________________
2. _______________________
3. _______________________

Capstone

Students must pass one of the capstone courses (listed below), in addition to the three upper-division electives.

**CMPS 115**
Software Engineering

**CMPE 118/L**
Intro to Mechatronics

**CMPE 121/L**
Microprocessor System Design

**CMPE 125/L**
Logic Design with Verilog

**CMPE 151/L**
Advanced Networks

**CMPE 156/L**
Network Programming

Exit Requirements

1. Portfolio
   [https://www.soe.ucsc.edu/departments/computer-engineering/undergraduate/undergraduate-portfolio](https://www.soe.ucsc.edu/departments/computer-engineering/undergraduate/undergraduate-portfolio)
2. Exit Survey
   [https://ua.soe.ucsc.edu/exit-survey](https://ua.soe.ucsc.edu/exit-survey)
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Elective Choices (we can also provide URL for list of approved electives for CMPE majors)

Students wishing to focus on digital technology should consider including among their courses: EE 101/L, CMPE 110, CMPE 118/L, CMPE 121/L, and CMPE 125/L.

Students wishing to focus on network technology should consider including among their courses: CMPS 101, CMPE 151/L, CMPE 156/L, and CMPS 111.

In all cases, students should discuss their interests and elective choices with a faculty adviser.

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](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.
- A single course may not satisfy multiple major requirements.