Network & Digital Technology B.A. Degree
2019-2020 Curriculum Chart

Math Courses

MATH 19A
Calculus I

AM 10*
Engr. Math Methods I

AND

AM 20*
Engr. Math Methods II

OR

MATH 19B
Calculus II

MATH 21
Linear Algebra

AND

MATH 24
Differential Equations

MATH 23A
Vector Calculus

OR

AM 30
Multivariate Calculus for Engineers

*CSE 16
Discrete Math

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

Core Courses

CSE 20
Intro to Prog. Python

% CSE 12/L
Computer Systems & Assembly Lang.

*CSE 150/L
Intro to Computer Networks

CSE 13S or CSE 13E
Computer/Embedded Systems & C Programming

*CSE 185E
Technical Writing

*CSE 100/L
Logic Design

*CSE 101
Algorithms & Abstract Data Types

OR

*ECE 101/L
Electronic Circuits

Science Courses

PHYS 5A/L or 6A/L
Mechanics

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

Electives

Choose from Approved List of Upper Division Electives that can be found at:

1. ______________________
2. ______________________
3. ______________________

* Check catalog/SoE course descriptions for prerequisites
% Students with no prior programming experience are strongly recommended to take course CSE 20, CSE 10, or equivalent before taking this class.

Capstone

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

*CSE 115A
Software Engineering

*ECE 118/L
Intro to Mechatronics

*CSE 121/L
Microprocessor System Design

*CSE 125/L
Logic Design with Verilog

*CSE 156/L
Network Programming

Exit Requirements

1. Portfolio
   https://www.soc.ucsc.edu/departments/computer-engineering/undergraduate/undergraduate-portfolio
2. Exit Survey
   https://undergrad.soe.ucsc.edu/exit-survey
Students wishing to focus on digital technology should consider including among their courses: CSE 120, CSE 121/L, CSE 125/L, ECE 101/L, ECE 118/L

Students wishing to focus on network technology should consider including among their courses: CSE 101, CSE 130*, CSE 131*, CSE 151/L, and CSE 156/L

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

*Students can only use either CSE 130 or CSE 131 to satisfy an elective.

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 may be substituted by an upper-division individual or field study (CSE, ECE 193 or 198) with approval. Approval is determined by the department via Course Substitution Petition.
- A single course may not satisfy multiple major requirements.