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

Math Courses

- **MATH 19A**
  Calculus I

- **MATH 19B**
  Calculus II

- **MATH 23A**
  Vector Calculus

- **MATH 19B**
  Calculus II

- **AM 10***
  Engr. Math Methods I

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

- **MATH 21**
  Linear Algebra

- **MATH 24**
  Differential Equations

- **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](http://matlab-training.soe.ucsc.edu), or ECE 8, prior to enrolling into ECE 101/L.

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:
[https://undergrad.soe.ucsc.edu/curriculum-charts/ndt-electives](https://undergrad.soe.ucsc.edu/curriculum-charts/ndt-electives)

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.

Core Courses

- **CSE 20**
  Intro to Prog.
  Python

- **CSE 30**
  Prog. Abstractions:
  Python

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

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

- **CSE 100/L**
  Logic Design

- **CSE 101**
  Algorithms & Abstract Data Types

- **CSE 150/L**
  Intro to Computer Networks

- **CSE 185E**
  Technical Writing

# Satisfies the DC requirement.

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](https://www.soc.ucsc.edu/departments/computer-engineering/undergraduate/undergraduate-portfolio)
2. Exit Survey
   [https://undergrad.soc.ucsc.edu/exit-survey](https://undergrad.soc.ucsc.edu/exit-survey)
### Elective Choices [https://undergrad.soe.ucsc.edu/curriculum-charts/ndt-electives](https://undergrad.soe.ucsc.edu/curriculum-charts/ndt-electives)

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.

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**Student Name:**

**Staff Advisor:**

**Faculty Advisor:**