Math Courses

- MATH 19A
  Calculus I

- MATH 19B
  Calculus II

- MATH 23A
  Vector Calculus

- AM 10*
  Engr. Math Methods I
  AND
  AM 20*
  Engr. Math Methods II

- OR

- MATH 21
  Linear Algebra

- MATH 24
  Differential Equations

- AM 30
  Multivariate Calculus for Engineers

- CSE 16
  Discrete Math

Science Courses

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

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

Core Courses

- CSE 20
  Intro to Prog. Python

- CSE 30
  Prog. Abstractions: Python

- CSE 101
  Introduction to Data Structures & Algorithms

- CSE 150
  Intro to Computer Networks

- CSE 12
  Computer Systems & Assembly Language

- CSE 13S or ECE 13
  Computer Systems & C Programming

- CSE 185E
  Technical Writing for Computer Science and Engineering
  Satisfies the DC requirement.

Electives (choose four)**

Digital Technology for Networking Focus

- CSE 118 Mobile Applications
- CSE 151/L Advanced Computer Networks and Laboratory
- CSE 156/L* Network Programming and Laboratory
- CSE 157* Internet of Things
- CSE 167 Mobile Sensing and Interaction
- CSE 183* Web Applications

Internet Software Technology Focus

- CSE 115A* Introduction to Software Engineering
- CSE 117 Open Source Programming
- CSE 130 Principles of Computer Systems Design
- CSE 165 Human-Computer Interaction
- CSE 180*** Database Systems I
- CSE 181* Database Systems II
- CSE 182*** Introduction to Database Management Systems
- CSE 186 Full Stack Web Development I
- CSE 187* Full Stack Web Development II

Capstone

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

- CSE 115A*
  Software Engineering
  Prerequisites: CSE 101 + CSE 130

- CSE 156/L*
  Network Programming + Lab
  Prerequisites: CSE 150 + CSE 101

- CSE 157*
  Internet of Things
  Prerequisites: CSE 121 + CSE 150

- CSE 181*
  Database Systems II
  Prerequisites: CSE 180 + CSE 130

- CSE 183*
  Web Applications
  Prerequisites: CSE 101

- CSE 187*
  Full Stack Web Development II
  Prerequisites: CSE 186

*AM 10 & 20 are strongly preferred. Students who complete MATH 21 & MATH 24 (or the equivalents) in lieu of AM 10 & 20 are strongly encouraged to take the MATLAB self-paced tutorial: http://matlab-training.soe.ucsc.edu.

**Focuses are suggestions; any combination of 4 electives will satisfy the NDT elective requirement; the link to the full elective list is on the back.

***Students may NOT receive credit for both CSE 180 and CSE 182.

Complete 36 units of the highlighted courses by the end of 5th quarter with at least a 2.3 GPA. You do not need to complete all highlighted classes for major declaration.

https://undergrad.soe.ucsc.edu/ • bsoeadvising@ucsc.edu • (831) 459-5840 • 9/7/2023
Baskin 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/current-students/declare-your-major](https://undergrad.soe.ucsc.edu/current-students/declare-your-major)

All students admitted to a Baskin 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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### Upper Division Electives

Please refer to the Undergraduate Advising website for the list of approved electives


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**Notes:**

- Baskin 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/current-students/declare-your-major](https://undergrad.soe.ucsc.edu/current-students/declare-your-major)
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**Student Name:**

**Staff Advisor:**