Robotics Engineering B.S. Degree
2022-2023 Curriculum Chart

Math Courses
- MATH 19A Calculus I
- MATH 19B Calculus II
- MATH 23A Vector Calculus or AM 30^ Multivariate Calculus for Engineers
- AM 10^ Engr. Math Methods I
- MATH 21 Linear Algebra
- AM 20 Engr. Math Methods II
- CSE 16 Discrete Math
- CSE 107 Probability & Statistics
- ECE 103/L Signals & Systems

Programming
- CSE 12 Computer Systems & Assembly Language
- CSE 20 Beginning Programming in Python
- CSE 13 Computer Systems & C Programming
- CSE 30 Programming Abstractions: Python
- CSE 101 Introduction to Data Structures and Algorithms

Science Courses
- PHYS 5A/L Mechanics
- ECE 9 Statics and Mechanics of Materials
- PHYS 5C/N Electricity & Magnetism
- ECE 10 Fundamentals of Robot Kinematics & Dynamics

Digital Electronics
- CSE 100/L Logic Design
- ECE 101/L Electronic Circuits
- ECE 121 Microcontroller System Design

Robotics
- ECE 118 Intro to Mechatronics
- ECE 167 Sensing & Sensor Technologies
- ECE 141 Feedback Control Systems

Electives
- Advanced Robotics Elective*
- Elective**

Capstone (choose one option)#
- ECE 129A, 129B, & 129C Capstone Project I, II, & III
- ECE 129A Capstone Project 1 & ECE 195 (10 credits) Senior Thesis Research

Exit Requirements
1. Portfolio https://engineering.ucsc.edu/departments/electrical-and-computer-engineering/robotics-engineering-bs-portfolio
2. Exit Survey https://undergrad.soe.ucsc.edu/current-students/graduating-seniors/exit-survey-1
3. Exit Interview

^Strongly recommended
* Please refer to the UA website for the list of approved courses for the Adv. Robotics elective
**Please refer to the UA website for the list of approved courses for this elective requirement

# The Disciplinary Communication requirement (DC) is satisfied by completing one of the capstone options.

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# Robotics Engineering B.S. Degree
## 2022-2023 Curriculum Chart

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### 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.

**Student Name:**

**Staff Advisor:**

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