Robotics Engineering B.S. Degree
2021-2022 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 or 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
- ECE 13 Computer Systems & C Programming
- CSE 30 Program 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**

Elective Requirement
* 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

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

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/exit-survey
3. Exit Interview

https://undergrad.soe.ucsc.edu • soeadvising@ucsc.edu • (831) 459-5840 • 10/12/2021
Robotics Engineering B.S. Degree  
2021-2022 Curriculum Chart

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Approved List of Upper Division Electives

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

Non Advanced Robotics Engineering Electives: https://undergrad.soe.ucsc.edu/non-advanced-robotics-engineering-electives

Advanced Robotics Electives: https://undergrad.soe.ucsc.edu/advanced-robotics-electives

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
- 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: