Robotics Engineering B.S. Degree
2015-2016 Curriculum Chart

Math Courses

- **MATH 19A**
  - Calculus I

- **MATH 19B**
  - Calculus II

- **MATH 23A**
  - Multivariable Calculus

- **EE 103/L**
  - Signals & Systems

- **CMPE 8**
  - Robot Automation

- **CMPE 16**
  - Discrete Math

- **CMPE 107**
  - Probability & Statistics

- **AMS 10**
  - Engr. Math Methods I
  - or
  - **MATH 21**
    - Linear Algebra

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

* Strongly recommended

** Not required, but strongly recommended for frosh.

Science Courses

- **PHYS 5A/L**
  - Mechanics

- **CMPE 9**
  - Statics, Dynamics, & Biomechanics

- **PHYS 5C/N**
  - Electricity & Magnetism

- **CMPE 115**
  - Solid Mechanics

Digital Electronics

- **CMPE 100/L**
  - Logic Design

- **EE 101/L**
  - Electronic Circuits

- **CMPE 121/L**
  - Microprocessor System Design

Robotics

- **CMPE 118/L**
  - Intro to Mechatronics

- **CMPE 141**
  - Feedback Control Systems

- **CMPE 167/L**
  - Sensing & Sensor Technologies

Advanced Robotics Elective:
(Choose one)

- CMPE 215
- CMPE 216
- CMPE 240
- CMPE 242
- CMPE 244
- CMPE 264

Capstone

- **CMPE 129A, 129B, & 129C**
  - Capstone Project I, II, & III

Programming

- **CMPE 12/L**
  - Computer Systems & Assembly Language

- **CMPE 13/L**
  - Computer Systems & C Programming

- **CMPS 12B/M**
  - Data Structures

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

Electives

- **CMPE 185#**
  - Technical Writing

Breadth

- **Ethics:**
  - (Choose one)
  - CMPE 80E
  - BME 80G
  - PHIL 80G
  - CHEM 80G
  - PHIL 22
  - PHIL 24
  - PHIL 28

- **CMPE 185#**
  - Technical Writing

* Electives can be an upper division or graduate course from Approved List on the back

# Satisfies the DC requirement

Exit Requirements

1. Portfolio
   - [http://cc.soe.ucsc.edu/portfolio](http://cc.soe.ucsc.edu/portfolio)
2. Exit Survey
   - [http://ua.soe.ucsc.edu/exit-survey](http://ua.soe.ucsc.edu/exit-survey)
3. Exit Interview
### Approved List of Upper Division Electives

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**NOTES:**

- Requires prior approval.
- In addition to this list, any 5-unit CE, CS, or EE graduate course (200+) may also be used as an elective.
- At most, only one elective may be substituted by an upper-division individual or field study (CMPE, CMPS, EE 193 or 198) with approval.

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<td>Faculty Advisor:</td>
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<td>☐ I have discussed the BS/MS program with my advisor.</td>
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