

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

** Strongly recommended*
*** Not required, but strongly recommended for frosh.*

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

AMS 20
Engr. Math
Methods II

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

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

Breadth

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

CMPE 185#
Technical Writing

Elective*

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

Capstone

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

or

CMPE 129A
&
CMPE 195: Senior Thesis
&
Submission of approved thesis

Exit Requirements

1. Portfolio
<http://ce.soe.ucsc.edu/portfolio>
2. Exit Survey
<http://ua.soe.ucsc.edu/exit-survey>
3. Exit Interview

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Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Approved List of Upper Division Electives

AMS 114	CMPE 150/L	CMPS 104B	CMPS 140	EE 135/L
AMS 118	CMPE 151/L	CMPS 109	CMPS 142	EE 145/L
AMS 147	CMPE 153	CMPS 111	CMPS 146	EE 151
CMPE 108	CMPE 156/L	CMPS 112	CMPS 160/L	EE 152
CMPE 110	CMPE 161	CMPS 115	CMPS 161/L	EE 171/L
CMPE 113	CMPE 177	CMPS 121	CMPS 180	EE 172
CMPE 122	CMPE 193 ♦	CMPS 122	CMPS 181	EE 173/L
CMPE 125/L	CMPE 198 ♦	CMPS 128	CMPS 183	EE 175/L
CMPE 131	CMPS 102	CMPS 129	CMPS 190X	TIM 206
CMPE 142	CMPS 104A	CMPS 130	EE 130/L	

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.

Student Name:

Staff Advisor:

Faculty Advisor:

I have discussed the BS/MS program with my advisor.