

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

Math Courses

MATH 19A
Calculus I

CMPE 16
Discrete Math

MATH 19B
Calculus II

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

MATH 23A
Multivariable
Calculus

AMS 20
Engr. Math
Methods II

EE 103/L
Signals &
Systems

CMPE 107
Probability &
Statistics

** Strongly recommended*

Core Courses

CMPE 12/L
Computer
Systems &
Assembly Lang.

CMPE 121/L
Microprocessor
System Design

CMPS 12B/M
Data Structures

CMPE 13/L
Computer
Systems & C
Programming

CMPE 185#
Technical Writing

CMPS 101
Algorithms &
Abstract Data
Types

CMPE 100/L
Logic Design

Ethics:
(Choose one)
• CMPE 80E
• BME 80G (also
PHIL 80G or
CHEM 80G)
• PHIL 22
• PHIL 24
• PHIL 28

EE 101/L
Electronic Circuits

CMPE 110
Computer
Architecture

Science Courses

PHYS 5A/L
Mechanics

PHYS 5B/M
Waves & Optics
or
CMPE 9*
Statics, Dynamics, &
Biomechanics

PHYS 5C/N
Electricity & Magnetism

** CMPE 9 is recommended for the
Robotics & Control concentration*

Concentrations (choose one)

Systems Programming

CMPS 111
Operating Systems

CMPS 115
Software Engineering

CMPE 150/L
Intro to Comp. Networks

One of the following:
• CMPS 104A
• CMPE 113
• CMPE 156/L

Elective*

Robotics & Control

Two of the following:
• CMPE 118/L
• CMPE 141
• CMPE 167/L

Third course from above
or one of the following:

- AMS 114
- CMPE 115
- CMPE 153
- CMPE 215
- CMPE 216
- CMPE 240
- CMPE 242
- CMPE 244
- CMPE 264

Elective*

Computer Systems

CMPS 111
Operating Systems

CMPE 125/L
Logic Design w/ Verilog

CMPS 109
Advanced Programming
or
CMPS 115
Software Engineering

Elective*

Networks

CMPE 150/L
Intro to Comp. Networks

CMPE 156/L
Network Programming

CMPS 111
Operating Systems

CMPE 151/L
Advanced Networks
or
Elective*

Digital Hardware

CMPE 125/L
Logic Design w/ Verilog

EE 171/L
Analog Electronics

One of the following:
• CMPE 122
• CMPE 202
• CMPE 222
• EE 173/L**

Elective*

**Electives can be an upper division or graduate course from Approved List on the back
**EE 173 requires the prerequisite EE 174*

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

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

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 142	CMPS 104A	CMPS 140	EE 145/L
AMS 118	CMPE 150/L	CMPS 104B	CMPS 142	EE 151
AMS 147	CMPE 151/L	CMPS 109	CMPS 146	EE 152
CMPE 108	CMPE 153/ EE 153	CMPS 111	CMPS 160/L	EE 171/L
CMPE 113	CMPE 156/L	CMPS 112	CMPS 161/L	EE 172
CMPE 115	CMPE 161	CMPS 115	CMPS 180	EE 173/L
CMPE 118/L	CMPE 167/L	CMPS 121	CMPS 181	EE 175/L
CMPE 122	CMPE 177	CMPS 122	CMPS 183	TIM 206
CMPE 125/L	CMPE 193 ♦	CMPS 128	CMPS 190X	
CMPE 131	CMPE 198 ♦	CMPS 129	EE 130/L	
CMPE 141/EE 154	CMPS 102	CMPS 130	EE 135/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.