Computer 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 16  Discrete Math
- AMS 10*  Engr. Math Methods I
- MATH 21  Linear Algebra
- AMS 20  Engr. Math Methods II
- CMPE 107  Probability & Statistics

Core Courses
- CMPE 12/L  Computer Systems & Assembly Lang.
- CMPE 121/L  Microprocessor System Design
- CMPE 13/L  Computer Systems & C Programming
- CMPE 185#  Technical Writing
- CMPE 100/L  Logic Design
- CMPE 110  Computer Architecture
- CMPS 12B/M  Data Structures
- CMPS 101  Algorithms & Abstract Data Types
- EE 101/L  Electronic Circuits

Science Courses
- PHYS 5A/L  Mechanics
- PHYS 5B/M  Waves & Optics 
- PHYS 5C/N  Electricity & Magnetism

Concentrations (choose one)
- Systems Programming
  - CMPS 111  Operating Systems
  - CMPS 115  Software Engineering
  - CMPE 150/L  Intro to Comp. Networks
- Robotics & Control
  - Two of the following:
    - CMPE 118/L
    - CMPE 141
    - CMPE 167/L
  - AMS 114
  - AMS 115
  - CMPE 153
  - CMPE 215
  - CMPE 216
  - CMPE 240
  - CMPE 242
  - CMPE 244
  - CMPE 264
- Computer Systems
  - CMPS 111  Operating Systems
  - CMPE 125/L  Logic Design w/ Verilog
  - CMPE 150/L  Intro to Comp. Networks
  - CMPE 156/L  Network Programming
  - CMPS 119  Software Engineering
  - Elective*
- Networks
  - CMPE 151/L  Advanced Networks
  - CMPS 119  Software Engineering
  - 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
- 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

http://ua.soe.ucsc.edu • advising@soe.ucsc.edu • (831) 459-5840 • 07/14/2015
# Computer Engineering B.S. Degree
## 2015-2016 Curriculum Chart

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**Approved List of Upper Division Electives**

- AMS 114
- AMS 118
- AMS 147
- CMPE 108
- CMPE 113
- CMPE 115
- CMPE 118/L
- CMPE 122
- CMPE 125/L
- CMPE 131
- CMPE 141/EE 154
- CMPS 102
- CMPS 104A
- CMPS 104B
- CMPS 109
- CMPS 111
- CMPS 112
- CMPS 115
- CMPS 122
- CMPS 128
- CMPS 129
- CMPS 130
- CMPS 140
- CMPS 142
- CMPS 146
- CMPS 151
- CMPS 160/L
- EE 130/L
- EE 135/L
- EE 145/L
- EE 151
- EE 152
- EE 171/L
- EE 172
- EE 173/L
- EE 175/L
- TIM 206
- CMPS 190X
- CMPS 193 ♦
- EE 130
- EE 153
- EE 155/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.

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**Student Name:**

**Staff Advisor:**

**Faculty Advisor:**

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