Bioengineering B.S. Degree: Bioelectronics
2017-2018 Curriculum Chart

Math & Statistics

- MATH 3 or math placement of 400 or higher
MATH 19A
Calculus
[F/ W/ Sp/ Su]

- Math 19A or 20A
MATH 19B
Calculus
[F/ W/ Sp/ Su}

- MATH 3 or math placement of 400 or higher
AMS 10
Math Methods for Engineers I
[F/ W/ Sp]

- MATH 19B and AMS 10 or 10A or MATH 21
AMS 20
Math Methods for Engineers II
[W/ Sp]

- AMS 11B or ECON 11B or MATH 11B or MATH 19B or 20B
AMS 131
Intro to Probability Theory
[F/ W/ Sp/ Su]

- AMS 131 or CMPE 107
AMS 132
Statistical Inference
[W]

Physics

- MATH 19A or 20A
PHYS 5A/L
Intro to Physics I/Lab
[F/ W]

- PHYS 5A/L and MATH 19A or 20A
Co-Req: MATH 19B or 20B
PHYS 5B/M
Intro to Physics II/Lab
[W/ Sp]

- PHYS 5A/L and MATH 19B or 20B
PHYS 5C/N
Intro to Physics III/Lab
[F/ Sp]

Chemistry

- Previous or concurrent enrollment in MATH 3 or Math Placement score of 300 or higher
CHEM 1A
General Chemistry
[F/ W/ Sp/ Su]

CHEM 1B/M
General Chemistry/Lab
[F/ W/ Sp/ Su]

- CHEM 1A
CHEM 1C/N
General Chemistry/Lab
[F/ W/ Sp/ Su]

Computer Engineering

CMPE 12/L$^{\Omega}$
Computer Systems & Assembly Language/Lab
Strongly recommended to take one of these classes prior: CMPS 5J, CMPS 5P, CMPS 10 or equivalent
[F/ W/ Sp]

- CMPE 12/L
CMPE 13/L
Computer Systems & C Programming/Lab
[W/ Sp]

- CMPE 12/L
CMPE 100/L
Logic Design/Lab
[F/ W/ Sp]

Biology & Biotechnology

- CHEM 1A
BIOL 20A
Cell & Molecular Biology
[F/ W/ Sp/ Su]

- BIOL 20A
BIOE 20B
Development & Physiology
[F/ W/ Sp/ Su]

* Please refer to the right for prerequisites
BME 140
Bioinstrumentation [F]
OR
EE 104
Bioelectronics & Bioinstrumentations [Sp]

Humanities

BME 80G
Bioethics in the 21st Century
[F]

- CMPS 12B or CMPE 12 or BME 160
CMPE 185
Technical Writing
[F/ W/ Sp]

Prerequisites for **BME 140 and **EE 104***
BME 140 [F]: BME 5 or BME 51A & 51B, or EE 101/L or BIOL 100 or BIOC 100A
EE 104 [Sp]: EE 103

Electronics

- MATH 19A or 11A with instructor consent
BME 51A (4 credits)
Applied Electronics I
[W]

- BME 51A
BME 51B (4 credits)
Applied Electronics II
[Sp]

- PHYS 5C/N or 6C/N and MATH 24 or previous or concurrent enrollment in AMS 20 or 20A
EE 101/L
Intro to Electronic Circuits/Lab
[F/ W]

- EE 101/L and AMS 20 or 20A
EE 103/L
Signals & Systems/Lab
[F/ Sp]

ELECTRONICS ELECTIVE*
_____

ELECTRONICS ELECTIVE*
_____

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

Design Project OR Senior Thesis

***Prerequisites listed below**
CMPE 129A, 129B, & 129C
Capstone Project I, II, & III
A[F], B[W], C[Sp]

***Prerequisites listed below**
EE 129A, 129B, & 129C
Capstone Project I, II, & III
A[F], B[W], C[Sp]

***Prerequisites listed below**
CMPE 123A & 123B
Capstone Project I & II
A[W], B[Sp]

***Prerequisites:**
CMPE 129A: CMPE 121/L
CMPE 129B: previous or concurrent enrollment in CMPE 185
EE 129A: EE 171, CMPE 100, & previous or concurrent enrollment in EE 157, or CMPE 118 or CMPE 121
CMPE 123A: CMPE 121, previous or concurrent enrollment in CMPE185

BME 195
Senior Thesis
[F]

BME 195 (2 credits)
Senior Thesis
[W]

BME 195
Senior Thesis
[Sp]

- BME 185 or CE 185 and concurrent enrollment in BME/CE/EE 193 or 195 or 198
BME 123T
Senior Thesis Presentation
[w]

Prior to graduation (beng.soe.ucsc.edu) you must:

1. Submit a Portfolio
2. Complete an Exit Survey
3. Attend an Exit Interview

Notes:

- ● Denotes prerequisites and corequisites.
- \- 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.
- \- The School of Engineering has different major declaration deadlines than the UCSC Academic/Administrative calendar. Our deadlines and process can be found on: **http://ua.soe.ucsc.edu/declare**
- Ω CMPS 5P Intro. to Prog. in python is recommended for students who have never programmed
- \- **Major qualification requirements for this major can be found at: https://ua.soe.ucsc.edu/major-qualification**

Bioengineering B.S. Degree: Bioelectronics
2017-2018 Curriculum Chart

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Student Name:

Staff Advisor:

Faculty Advisor: