

Bioengineering B.S. Degree: Bioelectronics 2016-2017 Curriculum Chart

<p style="text-align: center;">Math & Statistics</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•MATH 3 or AMS 3 or math placement of 400 or higher MATH 19A Calculus [F / W / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>• MATH 19A or 20A MATH 19B Calculus [F / W / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•AMS 3 or Math 3 or math placement of 400 or higher AMS 10 Math Methods for Engineers I [F / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•MATH 19B, AMS 10 or MATH 21 AMS 20 Math Methods for Engineers II [W / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•MATH 11B or MATH 19B or 20B or AMS 11B AMS 131 Intro to Probability Theory [F / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>•AMS 131 or CMPE 107 AMS 132 Statistical Inference [W]</p> </div>	<p style="text-align: center;">Physics</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•Coreq: MATH 19A or 20A PHYS 5A/L Intro to Physics I [F / W]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•PHYS 5A/L, MATH 19A or 20A Coreq: MATH 19B or 20B PHYS 5B/M Intro to Physics II [W]</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>•MATH 19B or 20B, Phys 5A/L PHYS 5C/N Intro to Physics III [Sp]</p> </div>	<p style="text-align: center;">Chemistry</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•Prev. or concurrent enrollment in MATH 3 or equivalent or math placement of 300 or higher CHEM 1A General Chemistry [F / W / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•Strong high school level chemistry is strongly recommended CHEM 1B/M General Chemistry [F / W / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>•CHEM 1A CHEM 1C/N General Chemistry [F / W / Sp]</p> </div>	<p style="text-align: center;">Computer Engineering</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center;">CMPE 12/L^Ω Computer Systems & Assembly Language <small>Strongly recommended to take one of these classes prior: CMPS 5J, CMPS 5P, CMPS 10 or equivalent</small> [F / W / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•CMPE 12/L CMPE 13/L Computer Systems & C Programming [W / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>•CMPE 12/L CMPE 100/L Logic Design [W / Sp]</p> </div>	
	<p style="text-align: center;">Biology & Biotechnology</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•CHEM 1A BIOL 20A Cell & Molecular Biology [F / W / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•BIOL 20A BIOE 20B Development & Physiology [F / W / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>•BME 5 or BME 101/L or BME 51A & 51B, or EE 101/L or BIOL 100, or BIOC 100A BME 140 Bioinstrumentation</p> </div>	<p style="text-align: center;">Humanities</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center;">BME 80G Bioethics in the 21st Century [F]</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>•CMPS 12B or CMPE 12 or BME 160 CMPE 185 Technical Writing [F / W / Sp]</p> </div>	<p style="text-align: center;">Electronics</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>• MATH 19A BME 51A Applied Electronics I [W]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>• BME 51A BME 51B Applied Electronics II [Sp]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•PHYS 5C/N or 6C/N, MATH 24 or previous or concurrent enrollment in AMS 20 EE 101/L Intro to Electronic Circuits [F / W]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•EE 101/L, AMS 20 EE 103/L Signals & Systems [F / Sp]</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><i>Two of the following:</i></p> <ul style="list-style-type: none"> ➢ CMPE 167/L [W] Sensing and Sensors ➢ EE 104 [S] Bioelectronics and Bio-instrumentations ➢ EE 171/L [S] Analog Electronics </div>	
	<p style="text-align: center;">Design Project OR Senior Thesis</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>*Prereqs listed below CMPE/EE 129A Capstone Project I [F]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>*Prereqs listed below CMPE/EE 129B Capstone Project II [W]</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p>•CMPE/EE 129B CMPE/EE 129C Capstone Project III [Sp]</p> </div> <p style="font-size: small;"><i>The prerequisites for CMPE 129A and EE 129A are different—please plan accordingly.</i></p> <p>*Prerequisites: CMPE 129A: previous or concurrent enrollment in CMPE 121/L EE 129A: EE 171, CMPE 100, CMPE 185, & previous or concurrent enrollment in EE 157 or CMPE 118 or CMPE 121 *CMPE 129B: CMPE 129A; co-req CMPE 185 EE 129B: EE 129A</p>		<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center;">BME 195 Senior Thesis</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center;">BME 195 Senior Thesis</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center;">BME 195 Senior Thesis</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>•BME 185 or CMPE 185 and concurrent enrollment in BME/CE/EE 193, 195 or 198 BME 123T Senior Thesis Presentation [W]</p> </div>	

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

Information about the prerequisites and scheduling of courses can change without notice—please check your plan each quarter and adjust for any changes.

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

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|-----------------------|----------------------------|-----------------------------|
| 1. Submit a Portfolio | 2. Complete an Exit Survey | 3. Attend an Exit Interview |
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Bioengineering B.S. Degree: Bioelectronics 2016-2017 Curriculum Chart

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

Fall _____	Winter _____	Spring _____	Summer _____

<p>Bioelectronics Elective Approval Form</p> <p>Elective 1: _____</p> <p>Explanation for choice of electives:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

<p>Student Name:</p> <p>Staff Advisor:</p> <p>Faculty Advisor:</p>
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