

## B.S. Bioengineering - Medical Device Track

|           |        |    |   |  |   |  |   |  |   |   |   |                                  |           |
|-----------|--------|----|---|--|---|--|---|--|---|---|---|----------------------------------|-----------|
| <b>Y1</b> | Fall   | 18 | 4 | MATH 11 (4)<br>Calculus I              | 5 | CHEM 11 (5)<br>Chemistry I               | 1 | BIOE 1 (1)<br>1st year Seminars in<br>Bioengineering | 4 | BIOE 21 (4)<br>Intro Physiology         | 4 | CTW 1 (4)                        |           |
|           | Winter | 19 | 4 | MATH 12 (4)<br>Calculus II             | 5 | CHEM 12 (5)<br>Chemistry II              | 5 | PHYS 31 (5)<br>Physics I                             | 1 | ENGR 1 (1)<br>Intro Engineering         | 4 | CTW 2 (4)                        |           |
|           | Spring | 19 | 4 | MATH 13 (4)<br>Calculus III            | 5 | CHEM 31 (5)<br>Organic Chemistry I       | 5 | PHYS 32 (5)<br>Physics II                            | 1 | ENGR 1L (1)<br>Intro Engineering Lab    | 4 | CORE                             |           |
| <b>Y2</b> | Fall   | 19 | 4 | MATH 14 (4)<br>Calculus IV             | 4 | BIOE 25 (4)<br>Intro Biomedical Optics   | 5 | PHYS 33 (5)<br>Physics III                           | 1 | MECH 10L (1)<br>Graphical Design Lab    | 5 | BIOE 45 (5)<br>Programming       |           |
|           | Winter | 18 |   |  | 5 | BIOE 22 (5)<br>Intro Cell/Mol Bioeng     | 5 | BIOE 23 (5)<br>Intro Bio Devices                     | 4 | BIOE 24 (4)<br>Intro Mechanics/Modeling | 4 | C&I 1 (4)                        |           |
|           | Spring | 16 | 4 | AMTH 106 (4)<br>Differential Equations |   |  | 4 | BIOE 32 (4)<br>Intro Biochemical<br>Engineering      |   |   | 4 | ENGR 16 (4)*<br>(RTC 1)          | C&I 2 (4) |
| <b>Y3</b> | Fall   | 17 | 4 | BIOE 153 (4)<br>Biomaterials           |   |  | 5 | BIOE 161 (5)<br>Bioinstrumentation                   | 4 | BIOE 120 (4)<br>Experimental Methods    | 4 | ENGR 19 (4)*<br>(Ethics)         |           |
|           | Winter | 13 |   |  | 4 | BIOE 155 (4)<br>Biological Transport     | 5 | BIOE 168 (5)<br>Biophotonics                         |   |   | 4 | CORE                             |           |
|           | Spring | 14 |   |  | 5 | BIOE 174 (5)<br>Microfab & Microfluidics | 5 | BIOE 162 (5)<br>Biosignals                           |   |   | 4 | ENGL 181 (4)<br>Engineering Comm |           |
| <b>Y4</b> | Fall   | 15 | 2 | BIOE 194 (2)<br>Senior Design I        |   |  |   |  | 5 | BIOE 171 (5)<br>Physiology & Anatomy    | 4 | CORE                             | CORE      |
|           | Winter | 13 | 2 | BIOE 195 (2)<br>Senior Design II       |   |  | 4 | TE   | 3 | TE                                      |   | CORE                             | CORE      |
|           | Spring | 10 | 2 | BIOE 196 (2)<br>Senior Design III      | 4 | BIOE 154 (4)<br>Intro Biomechanics       |   |  |   |   |   | CORE                             | CORE      |

|                     |           |   |      |         |
|---------------------|-----------|---|------|---------|
| Bioengineering      | Chemistry | Engineering   | Math | Physics |
| Technical Electives |           | ≥ 8 units, at least 4 units must be upper-division BIOE courses |      |         |

\*ENGR 16 and ENGR 19 are recommended for engineering students as a way to satisfy the RTC 1 and Ethics requirements in the Core curriculum