

SJSU B.S. BIOMEDICAL ENGINEERING 5-YEAR STUDY PLAN - Fall 2021

| FALL | | | | SPRING | | | |
|-----------------|--|--|-------|----------------|--|------------------------------------|-------|
| | Course Number | Course Title | Units | | Course Number | Course Title | Units |
| Year I | Math 30/30X* | Calculus I | 3 | | Math 31/31X* | Calculus II | 4 |
| | Comm 20 | Oral Communication | 3 | | Chem 1A | General Chemistry | 5 |
| | Engl 1A | Composition I | 3 | | Engl 1B | Composition II | 3 |
| | Engr 10 | Intro to Engr | 3 | | | | |
| | <i>* MATH 30X requires enrollment in MATH 30W.</i> | | | | <i>* MATH 31X requires enrollment in MATH 31W.</i> | | |
| | Total | | 12 | | Total | | 12 |
| Year II | Chem 1B | General Chemistry | 5 | | Math 33A/33LA | Ordinary Diff Eqs for SCI and ENGR | 3 |
| | Math 32/32X* | Calculus III | 3 | | Biol 30 | Principles of Biology I | 4 |
| | BME 25 | Intro to BME Design | 2 | | Phys 50 | General Physics (Mechanics) | 4 |
| | Register to take WST | | | | | | |
| | <i>* MATH 32X requires enrollment in MATH 32W.</i> | | | | | | |
| | Total | | 10 | | Total | | 11 |
| Year III | BME 115 † | | 4 | | Foundations of BME | | 4 |
| | BME 177 † | | 3 | | Physiology for Engineers | | 3 |
| | AMS 1A | American Studies | 6 | | AMS 1B | American Studies | 6 |
| | BME 135 | Biomedical Engineering Design Methods | 2 | | BME 65 | Biomedical Applications of Statics | 3 |
| | | | | | BME 133 | Programming Applications in BME | 1 |
| | | | | Year III Total | | | 25 |
| Year IV | BME 130 † | | 3 | | Numerical Methods in BME | | 3 |
| | BME 117 † | | 3 | | Biotransport Phenomena | | 3 |
| | BME 68 | Biomed Applications of Ceramics/Metals | 3 | | BME 116 | Biosensors and Bioinstrumentation | 3 |
| | Chem 8 | Organic Chemistry | 3 | | BME 174 | Biomedical Regulatory Requirements | 3 |
| | Phys 51 | Electricity/Magnetism | 4 | | Engr 100W | Engineering Reports | 3 |
| | | | | | Chem 9 | Organic Chemistry | 1 |
| | | | | Year IV Total | | | 26 |
| Year V | BME 147 † | | 3 | | Quantitative & Statistical Methods for BME | | 3 |
| | BME 165 † | | 3 | | Applied Engineering Biomechanics | | 3 |
| | BME 198A | Senior Project I | 2 | | BME 198B | Senior Project II | 2 |
| | Engr 195A | Global/Social Issues | 1 | | Engr 195B | Global/Social Issues | 1 |
| | BME 168 | Medical & Biological Polymers | 3 | | BME 178 | Biomedical Product Realization | 3 |
| | | One course from Major Electives ‡ | 3 | | | One course from Major Electives ‡ | 3 |
| | <i>† These BME courses can be taken either semester.</i> | | | | <i>‡ A list of preapproved elective tracks is available on the BME department website.</i> | | |
| | | | | Year V Total | | | 24 |

All classes must be completed with a grade of C- or better

TOTAL NUMBER OF UNITS

120

A. Bellofiore – June 30, 2021