CAL POLY
SAN LUIS OBISPO

# B.S. in BIOMEDICAL ENGINEERING
## General Curriculum
Suggested 2 Year Academic Flowchart for Transfer Students

**2020-2021 Catalog**
**Unofficial**

Please note: This flowchart is one example of how students can graduate in 2 years. Many times transfer students need longer than this. We encourage students to this use as a tool in creating their own unique quarter by quarter graduation plan.
Updated 5/4/2023

**This Transfer Student Flowchart assumes equivalents for the courses below have been transferred to Cal Poly. Anything not transferred, needs to be added to this flowchart, which may result in an additonal quarter/s. Check your DPR to verify credit:**

- ☐ **MATH 141**
- ☐ **MATH 142**
- ☐ **MATH 143**
- ☐ **MATH 241**
- ☐ **MATH 244**
- ☐ **CHEM 124**
- ☐ **CHEM 125**
- ☐ **ME 211**
- ☐ **ME 212**
- ☐ **CE 204**
- ☐ **BIO 161 (B2)**
- ☐ **PHYS 141**
- ☐ **PHYS 142 (formerly PHYS 132)**
- ☐ **PHYS 143 (formerly PHYS 133)**
- ☐ **CSC 231**
- ☐ **EE 201**
- ☐ **MATE 210**
- ☐ **ME 228**[1]
- ☐ **GE AREA A1**
- ☐ **GE AREA A2**
- ☐ **GE AREA A3^**
- ☐ **GE AREA C1**
- ☐ **GE AREA C2**
- ☐ **GE AREA LOWER-DIVISION C ELECTIVE**
- ☐ **GE AREA D1**
- ☐ **GE AREA D2**
- ☐ **GE AREA D ELECTIVE**
- ☐ **GE AREA E**

| YEAR 1 | | | YEAR 2 | | |
|---|---|---|---|---|---|
| Fall | Winter | Spring | Fall | Winter | Spring |
| *Introduction to the Biomedical Engineering Major* **BMED 101 (1)** | *Introduction to Biomedical Engineering Analysis* **BMED 102 (1)** (BMED 101) | *Principles of Biomaterials Design* **BMED 420 (4)** (CE 204 or 208; MATE 210; BMED 310†) | *Bioelectronics & Instrumentation* **BMED 440 (4)** (BMED 310; EE 201) | *Biomedical Engineering Design I* **BMED 455 (4)**[5] (BMED 410) | *Biomedical Engineering Design II: Senior Project* **BMED 456 (4)**[5] (BMED 455) |
| *Introduction to Biomedical Engineering Design* **BMED 212 (3)** (MATH 143) | *Biomechanics* **BMED 410 (4)** (CE 204 or 208; ME 212; BMED 310†) | General Curriculum **Approved Technical Elective (300/400 level) (4)*[4]** | *Engineering Physiology* **BMED 460 (4)** (BMED 310, BIO 231 or 232; or graduate standing) | *Contemporary Issues in BMED* **BMED 450 (4)*** *(Senior standing)* | *Biomedical Engineering Transport* **BMED 425 (4)** (ME 302, ME 341) |
| *Biomedical Engineering Measurement and Analysis* **BMED 310 (4)** (EE 201; CPE/CSC 101, CSC 231, 232, or 234) | *Biomedical Modeling and Simulation* **BMED 430 (2)** (BMED 310) | General Curriculum **Approved Support Elective (4)*[3]** | General Curriculum **Approved Technical Elective (300/400 level) (4)*[4]** | General Curriculum **Approved Support Elective (4)*[3]** | General Curriculum **Approved Technical Elective (300/400 level) (4)*[4]** |
| **Choose one:** *Human Anatomy and Physiology I.* **BIO 231 (5)*** ***OR*** *Human Anatomy and Physiology II.* **BIO 232 (5)*** | General Curriculum *Mechanics of Materials II* **CE 207 (2)**[2] (CE 204) **or** *Electronics* **EE 321 (3)**[2] (EE 201) | *Thermodynamics I* **ME 302 (3)** (ME 212 & PHYS 142) | *Fluid Mechanics I* **ME 341 (3)** (MATH 242 or 244; ME 212) | **Upper-Division GE C (4)**** (combine with USCP requirement if still needed) | General Curriculum **Approved Support Elective (4)*[3]** |
| *Any GE or Support Course Not Completed* | *Statistical Methods for Engineers* **STAT 312 (4)*** (MATH 142) [Upper Division B] | Graduation Writing Requirement GWR* (Must be fulfilled before graduation by either enrolling in a GWR-approved, upper-division English course (which can double-count with the Upper Division C) or by completing the GWR Portfolio through enrolling in UNIV 401. GWR courses are searchable on Schedule Builder). | | | |
| 13+ | 13-14 | 15 | 15 | 16 | 16 |

**Notes:**

**MOST GENERAL EDUCATION COURSES CAN BE TAKEN IN ANY ORDER AS LONG AS PREREQUISITES ARE MET**

* Refer to current catalog for prerequisites.
**Refer to online catalog for GE course selection, United States Cultural Pluralism (USCP) and Graduation Writing Requirement (GWR). USCP requirement can be satisfied by some (but not all) courses within GE categories: C1, Upper-Division C, D1, D2, D Elective and E.
† Course can be taken previously or concurrently.
[1]ME 228 only required for the General Curriculum and the Mechanical Design Concentration.
[2]CE 207 or EE 321 is required for the General Curriculum. CE 207 is required for the Mechanical Design Concentration.
[3]Refer to current catalog for course selection. Support electives for General Concentration must total 12 units.
[4]Refer to current catalog for course selection. Technical electives for General Concentration must total 12 units.
[5] ENGR 459, ENGR 460, and BMED 400 (8 units) or ENGR 463 464, 465, and BMED 400 (8) may substitute for BMED 455 and BMED 456 (8).
^ENGL 149 has been discontinued. For those who still need to take this requirement, you will need to replace this requirement with ENGL 147.

**UNLESS A CONCENTRATION IS DECLARED, THE DEFAULT WILL BE GENERAL CURRICULUM IN BIOMEDICAL ENGINEERING.**

**Legend:**

*Course Title*
**Course # (Units)**
(Prerequisite)
[GE Area]

**Major**
**Support**
**General Ed.**