

**B.S. in MATERIALS ENGINEERING**  
Suggested 2-Year Academic Flowchart for Transfer Students Admitted Fall 2023

**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 use as a tool in creating their own unique quarter by quarter graduation plan.  
Updated 4/18/23

|   |  | YEAR 1   |  |   | YEAR 2  |   |  |
|---|--|--|--|---|---|---|--|
|   |  | Fall   | Winter   | Spring  | Fall  | Winter  | Spring   |
| <div> <div>Introduction to Materials Engineering Design I<br/><b>MATE 110 (1)</b><br/>***</div> <div>Introduction to Materials Engineering Design II<br/><b>MATE 120 (1)</b><br/>(MATE 110)<br/>***</div> </div> <p>***Talk to Department Chair about appropriate course substitution</p> <p>This Transfer Student Flowchart assumes equivalents for the courses below have been transferred to Cal Poly. Anything not transferred in needs to be added to this flowchart, which may result in an additional quarter/s. Check your DPR to verify credit:</p> <div> <div> <input type="checkbox"/> MATH 141<br/><input type="checkbox"/> MATH 142<br/><input type="checkbox"/> MATH 143<br/><input type="checkbox"/> MATH 241<br/><input type="checkbox"/> MATH 244<br/><input type="checkbox"/> PHYS 141<br/><input type="checkbox"/> PHYS 132/142<br/><input type="checkbox"/> PHYS 133/143<br/><input type="checkbox"/> CHEM 124<br/><input type="checkbox"/> CHEM 125<br/><input type="checkbox"/> MATE 210<br/><input type="checkbox"/> MATE 215 </div> <div> <input type="checkbox"/> EE 201<br/><input type="checkbox"/> EE 251<br/><input type="checkbox"/> ME 211<br/><input type="checkbox"/> CE 204<br/><input type="checkbox"/> ENGL 149 (A3)<sup>8</sup><br/><input type="checkbox"/> GE AREA A1<br/><input type="checkbox"/> GE AREA A2<br/><input type="checkbox"/> GE AREA B2<br/><input type="checkbox"/> GE AREA C1<br/><input type="checkbox"/> GE AREA C2<br/><input type="checkbox"/> GE AREA LOWER-DIVISION C ELECTIVE </div> <div> <input type="checkbox"/> GE AREA D1<br/><input type="checkbox"/> GE AREA D2<br/><input type="checkbox"/> GE AREA D ELECTIVE<br/><input type="checkbox"/> GE AREA E </div> </div> |  | <div>Materials Laboratory II<br/><b>MATE 225 (1)</b><br/>(MATE 215; Concur: MATE 232)</div> <div>Materials, Ethics, and Society<br/><b>MATE 232 (4)</b><br/>(MATE 210)</div> <div>Electronic Materials Systems<br/><b>MATE 340 (4)</b><br/>(MATE 210 and PHYS 133)</div> | <div>Structural Materials Systems<br/><b>MATE 350 (4)</b><br/>(MATE 210, CE 204)<sup>†</sup></div> <div>Materials Laboratory III<br/><b>MATE 235 (1)</b><br/>(MATE 225)</div> <div>Introduction to Materials Thermodynamics<br/><b>MATE 280 (4)</b><br/>(CHEM 125, PHYS 133, MATH 143, MATE 210 &amp; 215)</div> | <div>Materials Engineering Analysis<br/><b>MATE 245 (1)</b><br/>Formerly MATE 130<br/>(MATE 210 &amp; MATE 235)</div> <div>Materials Selection Life Cycle<br/><b>MATE 300 (4)</b><br/>Formerly MATE 320<br/>(MATE 210 and Junior Standing; fulfills GWR)</div> <div>Junior Yr. Elective#<br/>Choose from one of the following:<br/><b>CHEM 312; ENGR 334; IME 303; ITP 341; MATE 390; NR 434 (4-5)*</b></div> | <div>Senior Project I<br/><b>MATE 482 (1)</b><br/>(Sr. Standing &amp; MATE major)</div> <div>Kinetics of Materials &amp; Process Design<br/><b>MATE 370 (4)</b><br/>(MATE 280 or 380)</div> <div>Composite Materials Systems<br/><b>MATE 480 (4)</b><br/>(MATE 350)</div> | <div>Senior Project II<br/><b>MATE 483 (2)</b><br/>(MATE 482)</div> <div>Noncrystalline Material Systems<br/><b>MATE 310 (4)</b><br/>(MATE 210 &amp; 340)</div> <div>Approved Elective/ Technical Breadth Elective<br/><b>(4)<sup>^</sup></b></div> | <div>Senior Project III<br/><b>MATE 484 (2)</b><br/>(MATE 483)</div> <div>Technical Elective<br/><b>(4)<sup>^</sup></b></div> <div>Technical Elective<br/><b>(4)<sup>^</sup></b></div> |
|   |  | Introduction to Design & Manufacturing<br><b>IME 144 (4)</b>   |  | Metallurgical Materials Systems<br><b>MATE 360 (4)</b><br>(MATE 235)  | Technical Elective<br><b>(4)<sup>^</sup></b>  | Upper-Division C (4)**<br>(Combine with USCP if have not taken yet)   | Approved Elective/ Technical Breadth Elective<br><b>(4)<sup>^</sup></b>  |
|   |  | Choose One Series*:<br><b>STAT 312 (4)* &amp; IME 315 (3)</b><br>(MATH 142) (MATH 142)<br><b>OR</b><br><b>STAT 321 (4)* &amp; IME 315 (3)</b><br>(MATH 142) (MATH 142)<br><b>OR</b><br><b>STAT 321 (4)* &amp; IME 326 (4)</b><br>(MATH 142) (STAT 321 w/ min C-)         |  | any remaining support or GE not transferred in  | Transport Phenomena I<br><b>MATE 325 (1)</b><br>(PHYS 132 and Math 141)   | any remaining support or GE not transferred in  |  |
|   |  |  |  |   |   |   |  |
|   |  | 13+  | 16-17  | 13+   | 14  | 14+   | 14   |

**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) & 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, or E.

† Course can be taken previously or concurrently.

^ Refer to your catalog for course selection options

# Junior year elective replaces CSC 231 and MATE 326 & 327 in the 20-21 catalog

<sup>8</sup>ENGL 149 has been discontinued. If this is still needed, take any GE A3

**Legend:**

|                                  |  |             |
|----------------------------------|--|-------------|
| Course Title<br>Course # (Units) |  | Major       |
| (Prerequisite)                   |  | Support     |
| [GE Area]                        |  | General Ed. |