BS MANUFACTURING ENGINEERING 2017-2019 *updated 04.17.17* Units Required 192

NOTE: This document can be used as a compact display of courses and other curricular requirements at the time of publication of the 2017-2019 catalog. The Degree Progress Report must be used to track students' progress in all degree requirements, throughout their Cal Poly career.

Note: No major or support courses may be selected as credit/no credit.

MAJOR COURSES (74)	*Units*
IME 101 Intro to Industr & Mfg Engineering	1
IME 140 Graphics Communication & Modeling	2
IME 141 Manufacturing Processes: Net Shape	1
IME 142 Mfg Processes: Materials Joining	2
IME 144 Intro to Design & Mfg	4
IME 156 Basic Electronics Mfg	2
IME 223 Process Improvement Fundamentals	4
IME 314 Engineering Economics	3
IME 327 Test Design & Analysis	4
IME 330 Fundamentals of Mfg Engr	4
IME 335 Computer-Aided Manufacturing I	4
IME 342 Manufacturing Systems Integration	4
IME 356 Manufacturing Automation	4
IME 417 Supply Chain & Logistics Management	4
IME 418 Product-Process Design	4
IME 430 Quality Engineering	4
IME 450 Manufacturing Process & Tool Engr	4
IME 481 Senior Project Design Lab I	2
IME 482 Senior Project Design Lab II	3
Technical Electives [2,3,4,5] *(see list on reverse)*	14

SUPPORT COURSES (78)

BIO 213 ***and***	2
BMED 213 (B2)[1]	2
CE 204 Mechanics of Materials I	3
CHEM 124 General Chem for Engineering I (B3/B4) [1]	4
CHEM 125 General Chem for Engineering II	4
CSC 232 Computer Programming for Scientists & Engineers	3
EE 201 Electric Circuit Theory	3
EE 251 Electric Circuits Laboratory	1
EE 321 Electronics	3
ENGL 149 Technical Writing for Engineers (A3) [1]	4
MATE 210 Materials Engineering	3
MATE 215 Materials Laboratory I	1
MATH 141 Calculus I (B1)[1]	4
MATH 142 Calculus II (B1)[1]	4
MATH 143 Calculus III (Add'l Area B)[1]	4
MATH 241 Calculus IV	4
MATH 244 Linear Analysis I	4
ME 211 Engineering Statics	3
ME 212 Engineering Dynamics	3
ME 302 Thermodynamics I	3
PHYS 141 General Physics IA (Add'l Area B)[1]	4
PHYS 132 General Physics II	4
PHYS 133 General Physics III	4
STAT 321 Probability and Stats for Engineers & Scientists (B6) [1]	4

GENERAL EDUCATION (GE) **40**

72 units required, *32 of which are specified in Major/Support*

Refer to current schedule or http://www.ge.calpoly.edu to choose GE courses.
You will not receive credit for courses not on the approved lists.

Minimum of 8 units required at the 300 level.

Area A Communication	**8**
A1 Expository Writing	4
A2 Oral Communication	4
A3 Reasoning, Argu & Writing (*4 units in Support*)[1]	
Area B Science and Mathematics (no add'l units req'd)	
28 units are listed in Support	
Area C Arts and Humanities	**16**
C1 Literature	4
C2 Philosophy	4
C3 Fine/Performing Arts	4
C4 Upper-division elective	4
Area D/E Society and the Individual	**16**
D1 The American Exp (40404)	4
D2 Political Economy	4
D3 Comp Social Institutions	4
D4 Self Dev (CSU Area E)	4

FREE ELECTIVES **0**

OTHER DEGREE REQUIREMENTS:

- **Cal Poly, Higher Ed, and Major GPA must all be at least 2.00**
- **For students admitted Fall 2016 and after, a grade of C- or higher is required in GE A1, A2, A3, and one GE B1 course**

All students must complete:

- **United States Cultural Pluralism Requirement**
- **Graduation Writing Requirement**
- **60 units Upper Division (any 300-400 level classes)**
- **Upper Division units in the Major: 27**
- **Residency Requirements: See Degree Progress Report for details**

TECHNICAL ELECTIVES[2,3,4,5]

AG/ISLA/EDES/ENGR/SCM/UNIV 350;
BMED 212, 410;
BUS 310, 311, 346;
CE 207;
EE 361, 434;

IME 301, 303, 305, 312, 319, 336, 351,401, 408, 410, 416, 420, 421,428, 429, 432, 435, 441, 442, 443, 451, 457, 470, 471, 520, 527, 541, 542, 543, 544;

IME/HNRS 322;
IME/MATE 458/ CPE 488;
IME/AERO 510, 511;
ITP 326, 329, 330, 341, 371, 406, 428;
MATE 410, 430, 440, 445;
MATH 344, 350;
ME 305, 341, 415

[1] Required in Support; also satisfies GE

[2] The courses selected to satisfy this requirement may not be used to satisfy other major, support, or general education requirements (no double counting of coursework).

[3] At least 10 units must be upper level (300-level or above) engineering or computer science courses.

[4] A max of 4 units of technical electives may be upper level (300-level or above) courses from outside of the College of Engineering or lower level (100 or 200 level) engineering or computer science courses.

[5] Students may take other 300 level or above courses not in the list subject to the approval by advisor and IME department chair. Consultation with advisor is recommended prior to selecting technical electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.