

**2011-13 Cal Poly Catalog**  
**Industrial & Manufacturing Engineering**  
**Department**  
**BS MANUFACTURING ENGINEERING**

- 60 units upper division
- 2.0 GPA
- GWR
- USCP

\* = Required in Support; also satisfies GE  
 Note: No major or support courses may be taken as credit/no credit.

**MAJOR COURSES**

IME 101 Intro Industrial and Manufacturing Engr	1
IME 140 Graphics Communication and Modeling	2
IME 141 Manufacturing Processes: Net Shape	1
IME 142 Manufacturing Processes: Matls Joining	2
IME 144 Intro Design and Manufacturing	4
<sup>5</sup> IME 157 Electronics Manufacturing	4
IME 223 Process Improvement Fundamentals	4
<sup>6</sup> IME 241 Process Design I	4
IME 314 Engineering Economics	3
IME 326 Eng Test Dsgn & Analysis <i>or</i> IME 327 (1/23/14)	4
IME 335 Computer-Aided Manufacturing I	4
IME 341 Tool Engineering I <i>or</i> IME 330 (1/23/14)	4
IME 342 Manufacturing Systems Integration	4
IME 352 Manufacturing Process Design II <i>or</i> IME 450 (1/23/14)	4
IME 356 Manufacturing Automation	4
IME 417 Supply Chain and Logistics Management	4
IME 418 Product-Process Design	4
IME 430 Quality Engineering	4
IME 481, 482 Senior Project Design Lab I, II	2,3
<sup>1,2,3,4</sup> Technical electives	12

Select 12 units from the following. All but 4 units must be upper level (300-level or above) engineering courses (AERO, BMED, CE, EE, IME, MATE, ME):  
 AERO 300, 301, 302, 303, 304, 306, 320, 331, 401;  
 BMED 212, 310, 410, 420, 425, 440;  
 BUS 310, 311, 346, 488;  
 BUS/AG/HUM/EDES/ENGR/SCM/UNIV 350;  
 CE 207;  
 EE 361;  
 IME 301, 303, 312, 313, 319, 336, 351, 401, 405, 407, 408, 409, 410, 411, 413, 416, 420, 421, 427, 428, 429, 431, 435, 437, 441, 442, 443, 455, 457, 470, 471, 542, 545, 556, 577, 580;  
 IME/MATE/HNRS 322;  
 IME/MATE 458/CPE 488;  
 IME/AERO 510, 511;  
 IT 326, 329, 330, 336, 341, 371, 406, 407;  
 MATE 310, 320, 330, 340, 350, 355, 360, 430, 435, 440, 445, 450, 460;  
 MATH 344, 350;  
 ME 305, 318, 326, 328, 329, 341, 343, 405, 406, 410, 412, 415, 416, 422, 423, 430, 431, 441, 446

Effective Spring 2012

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**SUPPORT COURSES**

BIO 213 and ENGR/BRAE 213 (B2)*	2,2
CE 204 Mechanics of Materials I	3
CHEM 124 Gen Chem for Engineering (B3/B4)*	4
CHEM 125 Gen Chem for Engineering	4
CSC 232 Computer Programming for Scientists and Engineers	3
EE 201 Electric Circuits Theory	3
EE 251 Electric Circuits Lab	1
EE 321 Electronics	3
ENGL 149 Technical Writing for Engineers (A3)*	4
MATE 210 Materials Engineering	3
MATE 215 Materials Laboratory I	1
MATH 141, 142 Calculus I, II (B1)*	4,4
MATH 143 Calculus III (Add'l Area B)*	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)*	4
PHYS 132, 133 General Physics II, III	4,4
STAT 321 Prob/Stats for Engrs/Scientists (B6)*	4
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**GENERAL EDUCATION (GE)**

72 units required, 32 of which are specified in Support.  
 →See page 39 for complete GE course listing.  
 →Minimum of 8 units required at the 300 level.

**Area A Communication (8 units)**

A1 Expository Writing	4
A2 Oral Communication	4
A3 Reasoning, Argumentation, and Writing * 4 units in Support	0

**Area B Science and Mathematics (no add'l units required)**

B1 Mathematics/Statistics * 8 units in Support	0
B2 Life Science * 4 units in Support	0
B3 Physical Science * 4 units in Support	0
B4 One lab taken with either a B2 or B3 course	
B5 (not required for Engineering students)	
B6 Upper-division Area B * 4 units in Support	0
Additional area units * 8 units in Support	0

<sup>1</sup> IME 400 and IME 500 require a course substitution form and no more than 4 total units are allowed.  
<sup>2</sup> 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).  
<sup>3</sup> A maximum of 4 units of technical electives may be taken outside of the College of Engineering.  
<sup>4</sup> 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.  
<sup>5</sup> IME 156 (2 units) and an additional 2 units of technical electives may substitute. (1/23/14)  
<sup>6</sup> An additional 4 units of technical electives may substitute. (1/23/14)

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<b>Area C Arts and Humanities (16 units)</b>	
C1 Literature .....	4
C2 Philosophy .....	4
C3 Fine/Performing Arts .....	4
C4 Upper-division elective .....	4
<b>Area D/E Society and the Individual (16 units)</b>	
D1 The American Experience (40404) .....	4
D2 Political Economy .....	4
D3 Comparative Social Institutions .....	4
D4 Self Development (CSU Area E) .....	4
	<b>40</b>
<b>FREE ELECTIVES .....</b>	<b><u>0</u></b>
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