

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

- 60 units upper division GWR
 2.0 GPA 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 & Manufacturing Engr	1
IME 140 Graphics Communication and Modeling	2
IME 141 Manufacturing Processes: Net Shape	1
IME 144 Intro Design and Manufacturing	4
IME 156 Basic Electronics Manufacturing or IME 157 Electronics Manufacturing	2
IME 223 Process Improvement Fundamentals	4
IME 239 Industrial Costs and Controls	3
IME 301 Operations Research I	4
IME 303 Project Organization and Management	4
IME 312 Data Management and System Design	4
IME 314 Engineering Economics	3
IME 319 Human Factors Engineering	3
IME 326 Engineering Test Design and Analysis	4
IME 405 Operations Research II	4
IME 410 Production Planning/Control Systems	4
IME 417 Supply Chain and Logistics Management	4
IME 420 Simulation	4
⁵ IME 421 Manufacturing Organizations	3
IME 429 Ergonomics Lab	1
IME 430 Quality Engineering	4
IME 443 Facilities Planning and Design	4
IME 481, 482 Sr Project Design Laboratory I, II	2,3
^{1,2,3,4} Technical electives	14

Select 14 units from the following. At least 6 units must be upper level (300-level or above) engineering courses (AERO, BMED, CE, EE, IME, MATE, ME):

CE 204, 207;
 BUS 310, 311, 346, 382, 402, 404, 488;
~~BUS~~/AG/HUM/EDES/ENGR/SCM/UNIV 350;
 EE 361;
 IME 142, 241, 313, 335, 336, 341, 351, 352, 356, 401, 407, 408, 409, 411, 413, 416, 417, 418, 427, 428, 431, 435, 437, 441, 442, 455, 457, 470, 471, 541, 542, 543, 544, 545, 556, 577, 580;
 IME/AERO 510, 511;
 IME/MATE 458/CPE 488;
 IT 341, 406;
 ME 302, 305, 328, 341;
 MATE 210, 215;
 MATH 344, 350;
 PSY 350, 494

Effective Spring 2012

SUPPORT COURSES

BIO 213 and ENGR/BRAE 213 (B2)*	2,2
CE 204 Mech Materials I/ME 341 Fluid Mech I	3
CHEM 124 Gen Chem for Engineering (B3/B4)*	4
CSC 232 Computer Programming/Scientists/Engrs	3
EE 201, 251 Electric Circuits Theory and Lab	3,1
EE 321 Electronics	3
ENGL 149 Technical Writing for Engineers (A3)*	4
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 or MATE 210 Materials Engrg and MATE 215 Materials Lab I	3
PHYS 141 General Physics IA (Add'l Area B)*	4
PHYS 132, 133 General Physics II, III	4,4
PSY 201/202 General Psychology (D4)*	4
STAT 321 Prob/Stats for Engrs/Scientists (B6)*	4
	74

GENERAL EDUCATION (GE)

72 units required, 36 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 addl units reqd)

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 B units * 8 units in Support	0

Area C Arts and Humanities (16 units)

C1 Literature	4
C2 Philosophy	4
C3 Fine/Performing Arts	4
C4 Upper-division elective	4

¹ IME 400 and IME 500 require a course substitution form and no more than 4 total units are allowed.

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 ~~A maximum of 4 units of technical electives may be taken outside of the College of Engineering. (10/20/11)~~

⁴ 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.

⁵ An additional 3 units of technical electives may substitute. (1/13/14)

Area D/E Society and the Individual (12 units)	
D1 The American Experience (40404)	4
D2 Political Economy	4
D3 Comparative Social Institutions	4
D4 Self Development (CSU Area E) * 4 units in Support	0
	36
FREE ELECTIVES	0
	196