



**California State Polytechnic University, Pomona  
Degree Curriculum Sheet**

Plan (Major) MANUFACTURING ENGINEERING  
Subplan/Option \_\_\_\_\_

Catalog Year 2012-2013 Name \_\_\_\_\_  
Minimum Units Required 198 Student ID \_\_\_\_\_

TGA \_\_\_\_\_  
GWT Satisfied \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

<b>Required Core Courses</b>		
<b>Course</b>		<b>Units</b>
Discrete Systems Simulation	IE 429/429L	3/1
Industrial & Manuf Engr Fundamentals	IME 112	3
Industrial & Manuf Engr Computations	IME 113/113L	2/1
Industrial Costs & Control	IME 239	3
Application of Statistics in Engineering	IME 301	3
Engineering Probability and Statistics	IME 312	3
Supply Chain Planning & Control	IME 326	3
Facilities Planning & Layout Design	IME 331/331L	3/1
Quality Control by Statistical Methods	IME 415/415L	3/1
Senior Project Seminar	IME 460	1
Senior Project	IME 471 or IME 461	2
Senior Project	IME 472 or IME 462	3
Analytic Geometry/Calculus II	MAT 115	4
Analytic Geometry/Calculus III	MAT 116	4
Calculus of Several Variables I	MAT 214	3
Calculus of Several Variables II	MAT 215	3
Elem Linear Algebra and Diff Equations	MAT 224	4
Engineering Graphics I	MFE 126/126L	2/1
Manufacturing Processes - Materials, Metrology & Treatment	MFE 217/217L	2/1
Manufacturing Processes I - Material Removal	MFE 221/221L	2/1
Engineering Graphics II	MFE 226/226L	2/1
Manufacturing Processes II - Form, Cast, Join	MFE 230/230L	2/1
Principles of Numerical Control	MFE 250/250L	2/1
Measurement & Methods	MFE 320/320L	3/1
Design for Manufacturing	MFE 326/326L	2/1
CAD/CAM	MFE 375/375L	3/1
Introduction to Computer Integrated Mfg	MFE 450/450L	3/1
Metal Work Theory & Application	MFE 465	3
Advanced Computer Aided Mfg Systems	MFE 476/476L	3/1
General Physics	PHY 132/132L	3/1
General Physics	PHY 133/133L	3/1
<b>Total Units</b>		<b>102</b>

<b>Elective Core Courses</b>	
<b>Course</b>	<b>Units</b>
Manufacturing Electives (Select with advisor approval)	3-4
Number of elective units depends on ME 301 or ME 311 in Required Support.	
<b>Total Units</b>	<b>3-4</b>

<b>Required Support Courses</b>		
<b>Course</b>		<b>Units</b>
General Chemistry	CHM 121	3
General Chemistry Lab (B3)	CHM 121L	1
General Chemistry	CHM 122/122L	3/1
Principles of Economics (D2)	EC 201	4
or Principles of Economics (D2)	EC 202	(4)
Elements of Electrical Engineering	ECE 231/231L	3/1
Ethical Cons. in Tech. & Appl Science (C4)	EGR 402	4
Asset Alloc in Tech Decision Making (D4)	EGR 403	4
Analytic Geometry/Calculus I (B4)	MAT 114	4
Vector Statics	ME 214	3
Vector Dynamics	ME 215	4
Strength Materials	ME 218	3
Fluid Mechanics	ME 311	3
or Thermodynamics	ME 301	(4)
General Physics/Lab (B1, B3)	PHY 131/131L	3/1
<b>Total Units</b>		<b>45-46</b>

<b>General Education Requirements</b>		<b>IGE (G.E. Alternative)</b>
<b>Area</b>	<b>Units</b>	
<b>Area A Communication &amp; Critical Thinking</b>	<b>12</b>	IGE 120 4 IGE 121 4 IGE 122 4 IGE 220 4 IGE 221 4
<b>Area B Mathematics &amp; Natural Sciences</b>	<b>16</b>	IGE 222 4 IGE 223 4 or EC 201 or EC 202
<i>Select at least one lab course from sub-area 1 or 2.</i>		
1 Physical Science		IGE 224 4
2 Biological Science		Area A1 4
3 Laboratory Activity		Area A3 4
4 Math/Quantitative Reasoning		Area B 16
5 Science & Technology Synthesis		Area C1, C2, or C3 4
<b>Area C Humanities</b>	<b>16</b>	Area C4 4 Area D4 4
1 Visual and Performing Arts		
2 Philosophy and Civilization		
3 Literature and Foreign Language		
4 Humanities Synthesis		
<b>Area D Social Sciences</b>	<b>20</b>	See University Catalog for information on how IGE meets G.E. requirements.
1 U.S. History, Constitution, American Ideals		
2 History, Economics and Political Science		
3 Sociology, Anthropology, Ethnic & Gender Studies		
4 Social Synthesis		
<b>Area E Lifelong Understanding &amp; Self Development</b>	<b>4</b>	
<b>Total Units</b>	<b>68</b>	

<b>American Institutions</b>	
Courses that satisfy this requirement may also satisfy G.E. Area D1	8

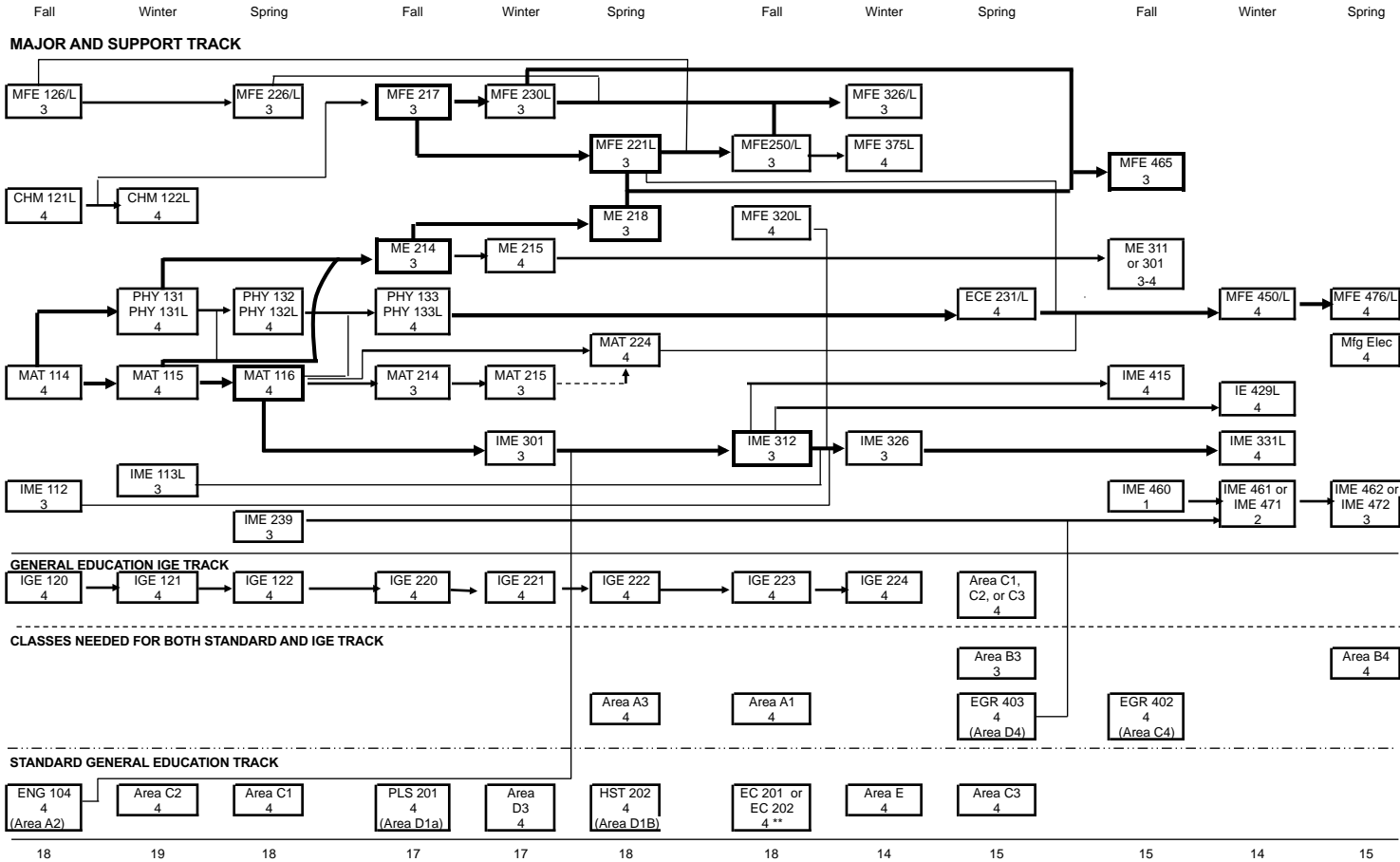
<b>American Cultural Perspectives Requirement</b>	
Refer to catalog for list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.	4

The following required support courses should be taken to satisfy the indicated GE Requirements to achieve the minimum units to degree listed at the top of this sheet.

<b>Course</b>		<b>GE Area</b>
General Physics	PHY 131/131L	B1, B3
and General Chemistry Lab	CHM 121L	B3
Analytic Geometry/Calculus I	MAT 114	B4
Ethical Considerations in Tech. & Appl Science	EGR 402	C4
Principles of Economics	EC 201 or 202	D2
Asset Alloc in Tech Decision Making	EGR 403	D4

The remaining GE requirements may be satisfied by any course approved for that area.

No more than 105 community college quarter units or 36 extension credit quarter units may be applied toward a Bachelor's degree.  
A minimum 2.0 cumulative GPA is required in core (including option) courses, Cal Poly Pomona courses, and overall work completed in order to receive a degree in this major.



Notes:

Important Deadlines:  
 GWT Must be taken by  
 Evaluation must be done by  
 Apply to graduation by

To optimize time here select the classes with bold squares as soon as possible and follow the bold paths.  
 Try to balance workload to the level of units you can handle per quarter, and in the proper mix of difficulty for you.  
 In general, try to take only one MATH or ME course at a time

**THE COURSES LISTED ABOVE INDICATE INTENT OF OFFERING QUARTER,  
 ACTUAL OFFERINGS MAY VARY**

Students in the IGE general education program take all classes above this line  
 Students in the Standard general education program take all classes below this line  
 Arrows indicate prerequisites, dashed lines indicate recommended sequences  
 It is recommended that students take companion activities for ME 214 and ME 215  
 Note that most MFE courses and many IME courses are offered only once a year  
 \*\* Note: Students with GE certification or in GE track have already satisfied this requirement