



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

Plan (Major) **MANUFACTURING ENGINEERING**

Catalog Year **2015 - 2016**

Name \_\_\_\_\_

Subplan/Option \_\_\_\_\_

Minimum Units Required **194**

Student ID \_\_\_\_\_

Required Core Courses		
Course		Units
Required of all students. A 2.0 cumulative GPA is required in core courses for the major in order to receive a degree in the major.		
Industrial & Mfg Engr Fundamentals	IME 112	3
Industrial & Mfg Engr Computations & Lab	IME 113/113L	2/1
Work Analysis and Design & Lab	IME 224/224L	3/1
Industrial Costs and Control	IME 239	3
Probability and Statistics in Engr & Lab	IME 314/314L	3/1
Supply Chain Planning and Control	IME 326	3
Facilities Planning & Material Handling & Lab	IME 331/331L	3/1
Statistical Quality Control & Lab	IME 415/415L	3/1
Senior Project Seminar	IME 460	1
Analytic Geometry and Calculus II	MAT 115	4
Analytic Geometry and Calculus III	MAT 116	4
Calculus of Several Variables I	MAT 214	3
Calculus of Several Variables II	MAT 215	3
Elementary Linear Algebra and Diff Equations	MAT 224	4
Engineering Graphics I & Lab	MFE 126/126L	2/1
Manufacturing Processes - Materials, Metrology and Treatments & Lab	MFE 217/217L	2/1
Manufacturing Processes I - Material Removal & Lab	MFE 221/221L	2/1
Engineering Graphics II & Lab	MFE 226/226L	2/1
Manufacturing Processes II - Forming, Casting, and Joining & Lab	MFE 230/230L	2/1
Principles of Numerical Control & Lab	MFE 250/250L	2/1
Design for Manufacturing & Lab	MFE 326/326L	2/1
Computer - Aided Design/Computer-Aided Manufacturing & Lab	MFE 375/375L	3/1
Manufacturing Metrology & Lab	MFE 380/380L	1/1
Intro to Computer Integrated Mfg & Lab	MFE 450/450L	3/1
Metal Working Theory and Applications	MFE 465	3
Advanced Computer - Aided Mfg Systems & Lab	MFE 476/476L	3/1
General Physics & Lab	PHY 132/132L	3/1
General Physics & Lab	PHY 133/133L	3/1
Discrete Systems Simulation & Lab	IE 429/429L	3/1
<b>Total Units</b>		<b>97</b>
Elective Core Courses		
Course		Units
Manufacturing Electives (Select with advisor approval) Number of Elective units depends on ME 301 or ME 311 in the Required Support Courses.		4-5
<b>Total Units</b>		<b>4-5</b>

Required Support Courses		
Course		Units
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.		
General Chemistry & Lab (B3)	CHM 121/121L	3/1
General Chemistry & Lab	CHM 122/122L	3/1
Principles of Economics (D2)	EC 201	4
or Principles of Economics (D2)	EC 202	(4)
Elements of Electrical Engineering & Lab	ECE 231/231L	3/1
Engineering, Society and You & Lab (E)	EGR 100/100L	3/1
Project Design Principles and Applications (B5)	EGR 481	2
Project Design Principles and Applications (B5)	EGR 482	2
Ethical Considerations in Technology and Applied Science (C4)	IME 402	4
Asset Allocation in Technical Decision Making (D4)	IME 403	4
Analytic Geometry and Calculus I (B4)	MAT 114	4
Vector Statics	ME 214	3
Vector Dynamics	ME 215	4
Strength of Materials I	ME 218	3
Fluid Mechanics I	ME 311	3
or Thermodynamics	ME 301	(4)
General Physics & Lab (B1, B3)	PHY 131/131L	3/1
<b>Total</b>		<b>53-54</b>

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

<b>American Institutions</b> Courses that satisfy this requirement may also satisfy GE Area D1	<b>8</b>
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<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.	<b>4</b>
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All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the quarter following completion of 120 units for undergraduates.