



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

Plan (Major) MANUFACTURING ENGINEERING
Subplan/Option _____

Catalog Year 2013-2014
Minimum Units Required 205

Name _____
Student ID _____

TGA _____
GWT Satisfied _____ Yes _____ No _____

Required Core Courses		
Course		Units
Project Design Principles and Applications	EGR 481	2
Project Design Principles and Applications	EGR 482	2
Discrete Systems Simulation	IE 429/429L	3/1
Industrial & Manuf Engr Fundamentals	IME 112	3
Industrial & Manuf Engr Computations	IME 113/113L	2/1
Work Analysis and Design	IME 224/224L	3/1
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 Seminar	EGR 481 or IME 461 or IME 471	2
Senior Project Seminar	EGR 482 or IME 462 or IME 472	2-3
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
Design for Manufacturing	MFE 326/326L	2/1
CAD/CAM	MFE 375/375L	3/1
Manufacturing Metrology	MFE 380/380L	1/1
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
Total Units		107-108

Elective Core Courses	
Course	Units
Manufacturing Electives (Select with advisor approval)	6-7
Number of elective units depends on ME 301 or ME 311 in Required Support.	
Total Units	6-7

Required Support Courses		
Course		Units
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
Total Units		45-46

General Education Requirements		IGE (G.E. Alternative)
Area	Units	
Area A Communication & Critical Thinking	12	IGE 120 4 IGE 121 4 IGE 122 4 IGE 220 4 IGE 221 4
Area B Mathematics & Natural Sciences	16	IGE 222 4 IGE 223 4 or EC 201 or EC 202 IGE 224 4 Area A1 4 Area A3 4 Area B 16
<i>Select at least one lab course from sub-area 1 or 2.</i>		Area C1, C2, or C3 4 Area C4 4 Area D4 4
Area C Humanities	16	
1 Visual and Performing Arts		
2 Philosophy and Civilization		
3 Literature and Foreign Language		
4 Humanities Synthesis		
Area D Social Sciences	20	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		
Area E Lifelong Understanding & Self Development	4	
Total Units	68	

American Institutions	Units
Courses that satisfy this requirement may also satisfy G.E. Area D1	8

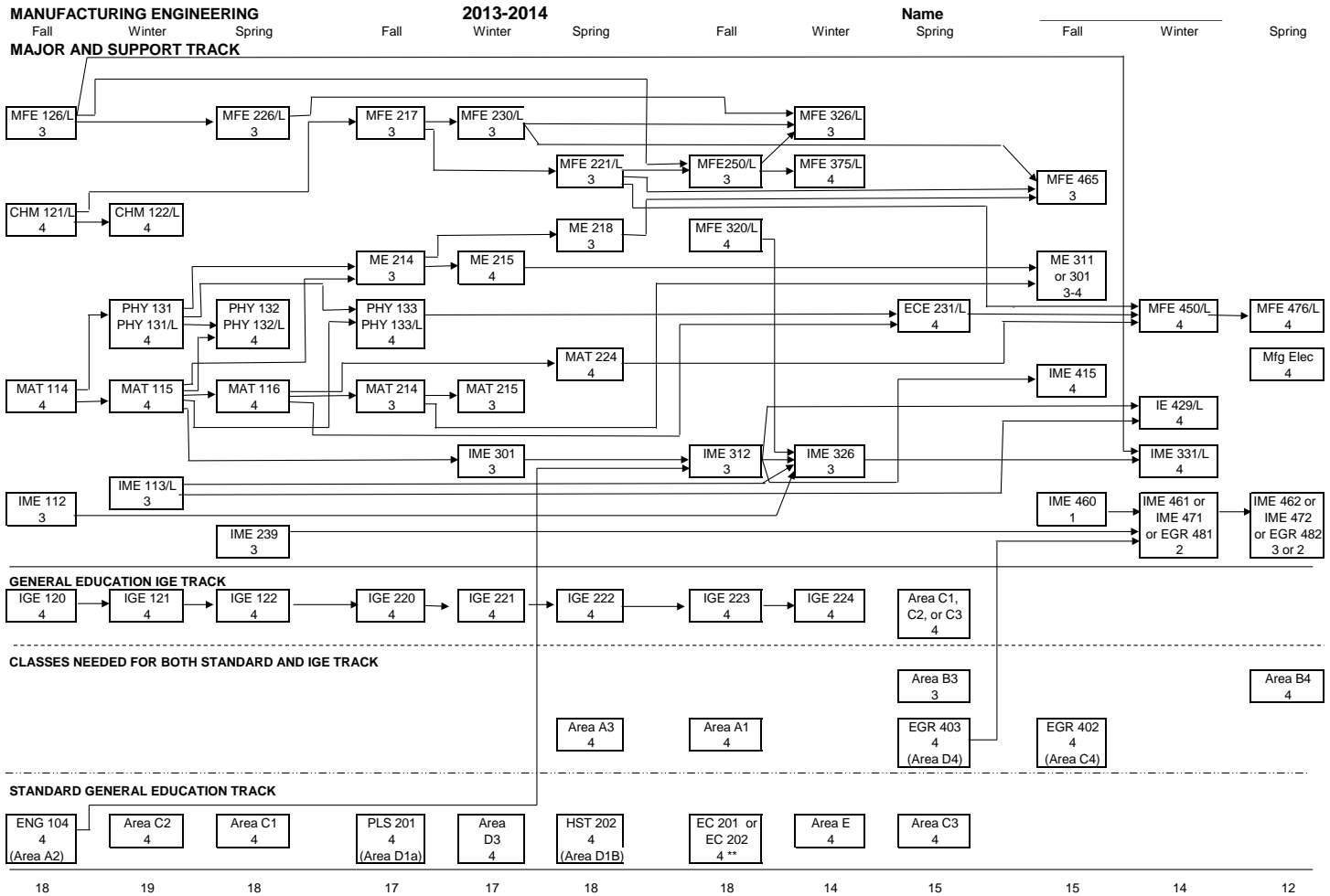
American Cultural Perspectives Requirement	Units
Refer to catalog for list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.	4

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.

Course	GE Area
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

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

To optimize time here select the classes with bold squares as soon as possible and follow the bold paths.

Arrows indicate prerequisites, dashed lines indicate recommended sequences

Try to balance workload to the level of units you can handle per quarter, and in the proper mix of difficulty for you.

It is recommended that students take companion activities for ME 214 and ME 215

In general, try to take only one MATH or ME course at a time

Note that most MFE courses and many IME courses are offered only once a year

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

** Note: Students with GE certification or in IGE track have already satisfied this requirement