



California State Polytechnic University, Pomona
Degree Curriculum Sheet

Plan (Major) **MECHANICAL ENGINEERING**
Subplan/Option _____

Catalog Year **2012-2013**
Minimum Units Required **198**

Name _____
Student ID _____

TGA _____
GWT Satisfied _____ Yes _____ No

Required Core Courses		
Course		Units
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
Linear Algebra & Differential Equations	MAT 224	4
Mechanical Engineering Orientation Lab	ME 100L	1
Vector Statics	ME 214	3
Mechanics Lab	ME 224L	1
Vector Dynamics	ME 215	4
Strength Materials	ME 218	3
Strength Materials	ME 219	3
Strength Materials Lab	ME 220L	1
Engineering Digital Computations	ME 232	2
Engineering Digital Computations Activity	ME 232A	1
Introduction to Mechanical Design	ME 233/233L	3/1
Thermodynamics	ME 301	4
Thermodynamics	ME 302	4
Fluid Mechanics	ME 311	3
Fluid Mechanics	ME 312	3
Fluid Mechanics Lab	ME 313L	1
Engineering Materials	ME 315	4
Intermediate Vector Dynamics	ME 316	3
Stress Analysis	ME 319	4
Machine Design	ME 325/325L	3/1
Engineering Numerical Computations Activity	ME 330A	1
Modeling of Systems	ME 340	3
Materials Science & Selection Lab	ME 350L	1
Finite Element Analysis	ME 406/406A	3/1
Heat Transfer	ME 415	4
Air Conditioning	ME 418/418L	3/1
or Thermal Systems Design	ME 427	(4)
Theory & Design for Mech. Measurement	ME 435/435L	3/1
Control of Mechanical Systems	ME 439/439L	3/1
General Physics	PHY 131/131L	3/1
General Physics	PHY 133/133L	3/1
Total Units		104

Required Emphasis Courses	
Course	Units
Select from department's list with advisor's approval	12
Total Units	12

Required Support Courses		
Course		Units
General Chemistry (B1, B3)	CHM 121/121L	3/1
General Chemistry II	CHM 122	3
General Chemistry II Lab (B3)	CHM 122L	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 Considerations Tech App Sci (C4)	EGR 402	4
Asset Allocation Tech Decision Making (D4)	EGR 403	4
*Project Design Principles & App (B5)	EGR 481, 482	4
Analytic Geometry/Calculus I (B4)	MAT 114	4
Engineering Graphics I	MFE 126/126L	2/1
Manufacturing & Systems Processes	MFE 201/201L	3/1
* To receive senior project credit, the student must have successfully passed all 300 level courses in the core.		
Total Units		39

For graduation, a grade of C- or better is required for all ME courses that are prerequisites to other ME courses.

General Education Requirements		IGE (G.E. Alternative)	
Area	Units		
Area A Communication & Critical Thinking	12	IGE 120	4
1 Oral Communication		IGE 121	4
2 Written Communication		IGE 122	4
3 Critical Thinking		IGE 220	4
Area B Mathematics & Natural Sciences	16	IGE 221	4
Select at least one lab course from sub-area 1 or 2.		IGE 222	4
1 Physical Science		IGE 223	4
2 Biological Science		IGE 224	4
3 Laboratory Activity		Area A1	4
4 Math/Quantitative Reasoning		Area A3	4
5 Science & Technology Synthesis		Area B	16
Area C Humanities	16	Area C1, C2	
1 Visual and Performing Arts		or C3	4
2 Philosophy and Civilization		Area C4	4
3 Literature and Foreign Language		Area D4	4
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 Science Synthesis			
Area E Lifelong Understanding & Self Development	4		
Total Units	68		

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

American Cultural Perspectives Requirement	
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 Chemistry	CHM 121/121L	B1, B3
and General Chemistry II Lab	CHM 122L	B3
Analytic Geometry/Calculus I	MAT 114	B4
Project Design Principles & Application I	EGR 481, 482	B5
Ethical Considerations in Tech. & Applied Sci	EGR 402	C4
Principles of Economics	EC 201 or 202	D2
Asset Allocation 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.

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA

MECHANICAL ENGINEERING DEPARTMENT

2012 – 2013

