



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

Plan (Major) MECHANICAL ENGINEERING
Subplan/Option _____

Catalog Year 2013-2014
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 or Thermal Systems Design	ME 418/418L ME 427	3/1 (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 IGE 121 4 IGE 122 4 IGE 220 4
Area B Mathematics & Natural Sciences	16	IGE 221 4 IGE 222 4 IGE 223 4 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 C Humanities	16	Area C1, C2 or C3 4 Area C4 4 Area D4 4
Area D Social Sciences	20	See University Catalog for information on how IGE meets G.E. requirements.
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 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.

**Mechanical Engineering Department
Mechanical Engineering Major
Curriculum Year: 2013-2014**

*Your department has developed this road plan, taking into account prerequisites and course availability.
This is only a guideline for selection of courses based on a four year plan.*

Year 1	Fall	Units	Winter	Units	Spring	Units	Comment
	ME 100L Major Core	1	MAT 115 Major Core	4	MAT 116 Major Core	4	<i>Students in this major are expected to maintain a GPA of at least 2.00 in all core courses.</i>
	MFE 126/126L Major Support	3	ME 232 Major Core	2	PHY 131/131L Major Core	4	
	CHM 121/121L GE Area B1	4	CHM 122 Major Support	3	MFE 201/201L Major Support	4	<i>MAT 114, CHM 121/121L, and CHM 122L satisfy both general education requirements & those of required support courses.</i>
	ENG 104 GE Area A2	4	COM 204 GE Area A1	4	GE Area C2 Any approved course in area.	4	
	MAT 114 GE Area B4	4	CHM 122L GE area B3	1	GE Area E (Continued) EGR 100L	1	<i>One course must be completed in each of the GE areas A2-3, B1-3, C1-3, D1-D3, and E.</i>
			GE Area E EGR 100	3	ME 232A Major Core	1	
	Total Units	16	Total Units	17	Total Units	18	
					Total Units for Year	51	

Year 2	Fall	Units	Winter	Units	Spring	Units	Comment
	MAT 214 Major Core	3	MAT 215 Major Core	3	MAT 224 Major Core	4	<i>Take the Graduation Writing Test as soon as you have accumulated 90 units.</i>
	ME 214/224L Major Core	4	PHY 133/133L Major Core	4	ME 215 Major Core	4	
	GE Area A3 ENG 105 or PHL 202	4	ME 218 Major Core	3	ME 219 Major Core	3	
	GE Area B2 BIO 110 (Recommended) Lab not required	3	ME 233/233L Major Core	4	GE Area C3	4	
			GE Area D3 Any approved course in area.	4	GE Area C1 Any approved course in area.	4	
	Total Units	14	Total Units	18	Total Units	19	
						Total Units for Year	

Year 3	Fall	Units	Winter	Units	Spring	Units	Comment
	ME 301 Major Core	4	ME 311 Major Core	3	ME 312 Major Core	3	
	ME 316 Major Core	3	ME 302 Major Core	4	ME 313L Major Core	1	
	ME 220L Major Core	1	ME 315 Major Core	4	ME 340 Major Core	3	
	ECE 231/231L Major Support	4	ME 319 Major Core	4	ME 350L Major Core	1	
	PLS 201 or HST 202 GE Area D1a	4	PLS 201 or HST 202 GE Area D1b	4	ME 325/325L Major Core	4	
					ME 330A Major Core	1	
Total Units	16	Total Units	19	Total Units	13		
Total Units for Year						48	

Year 4	Fall	Units	Winter	Units	Spring	Units	Comment
	ME 415 Major Core	4	Tech Elect. Reqrd Emph. Major Core	4	Tech Elect. Reqrd Emph. Major Core	4	<i>Required Technical Emphasis courses must be selected from the departmental list with the approval of your advisor.</i>
	ME 439/439L Major Core	4	ME 418/418L or ME 427 Major Core	4	Tech Elect. Reqrd Emph. Major Core	4	
			ME 435/435L Major Core	4	EGR 403 GE Area D4	4	
	EC 201 or 202 GE Area D2	4	ME 406/406A Major Core	4	EGR 482 GE Area B5	2	
			EGR 481 GE Area B5	2	EGR 402 GE Area C4	4	
					<i>File an application for graduation</i>		
Total Units	12	Total Units	18	Total Units	18		
Total Units for Year						48	

Total Units on Plan	198	<i>39 support units include 25 GE double counts.</i>
Major Core Units	116	
Major Support Units	39	
General Education Units	68	