



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

Plan (Major) MECHANICAL ENGINEERING
Subplan/Option _____

Catalog Year 2009-2010
Minimum Units Required 198

Name _____
Student ID _____

Evaluator _____
GWT Satisfied _____ Yes _____ No _____

Required Core Courses		
Course		Units
<i>Students in this major are expected to maintain a GPA of at least 2.00 in all core courses.</i>		
Mechanical Engineering Orientation	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 232/232A	2/1
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	ME 313L	1
Engineering Materials	ME 315	4
Intermediate Vector Dynamics	ME 316	3
Stress Analysis	ME 319	4
Machine Design	ME 325/L	4
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	4 (4)
Theory & Design for Mech. Measurement	ME 435/435L	3/1
Control of Mechanical Systems	ME 439/439L	3/1
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
General Physics	PHY 131/131L	3/1
General Physics	PHY 133/133L	3/1
Total Units		103

Elective Core Courses	
Course	Units
Technical Electives	13
Select from department's list with advisor's approval.	
Total Units	13

Required Support Courses		
Course		Units
Analytic Geometry/Calculus I (B4)	MAT 114	4
General Chemistry/Lab (B1, B3)	CHM 121/121L	3/1
General Chemistry II	CHM 122	3
General Chemistry II Lab (B3)	CHM 122L	1
Project Design Principles and Application (B5)	EGR 481, 482	4
Ethical Considerations in Technology and Applied Science (C4)	EGR 402	4
Principles of Economics (D2)	EC 201 or 202	4
Elements of Electrical Engineering/Lab	ECE 231/231L	3/1
Asset Allocation in Technical Decision Making (D4)	EGR 403	4
Engineering Graphics I/Lab	MFE 126/126L	2/1
Manufacturing & Systems Processes/ Lab	MFE 201/201L	3/1
Total Units		39

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
1 Oral Communication		
2 Written Communication		
3 Critical Thinking		
Area B Mathematics & Natural Sciences	16	IGE 221 4 IGE 222 4 IGE 223 4 IGE 224 4
<i>Select at least one lab course from sub-area 1 or 2.</i>		
1 Physical Science		
2 Biological Science		
3 Laboratory Activity		Area A2 4
4 Math/Quantitative Reasoning		Area A3 4
5 Science & Technology Synthesis		Area B 16
Area C Humanities	16	Area C1, C2 or C3 4
1 Visual and Performing Arts		
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. require- ments.
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/Lab	B1, B3
and General Chemistry II Lab	B3
Analytic Geometry/Calculus I	B4
Project Design Principles & Application I	B5
Ethical Considerations in Tech. & Applied Sci	C4
Principles of Economics	D2
Asset Allocation in Tech Decision Making	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.

**Mechanical Engineering Department
Mechanical Engineering Major
Curriculum Year: 2009-2010**

*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 232/232A Major Core	3	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 major and general education requirements</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	
			GE Area E EGR 100	3			<i>One course must be completed in each of the GE areas A2-3, B1-3, C1-3, D3, and E.</i>
Total Units	16	Total Units	18	Total Units	17		
					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	
	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	EC 201 or EC 202 GE Area C3	4	
			GE Area D3 Any approved course in area.	4	GE Area C1 Any approved course in area.	4	
		14	Total Units	18	Total Units	19	
					Total Units for Year	51	

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	
	<i>Take the Graduation Writing Test</i>				EC 201 or 202 GE Area D2	4	
	Total Units	16	Total Units	19	Total Units	16	
					Total Units for Year	51	

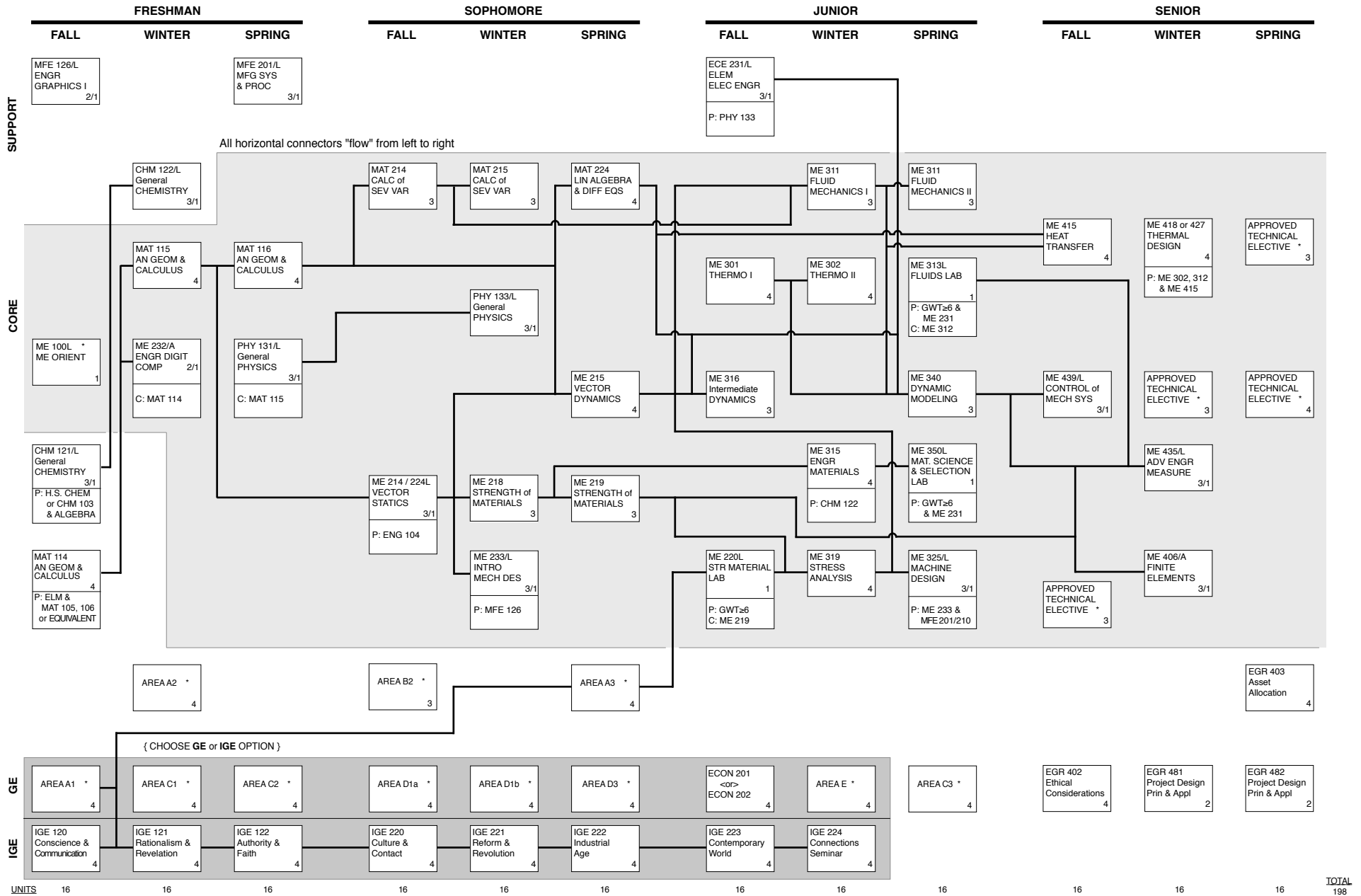
Year 4	Fall	Units	Winter	Units	Spring	Units	Comment	
	ME 415 Major Core	4	Technical Elective Major Core	3	Technical Elective Major Core	3	<i>Technical Electives must be selected from the departmental list with the approval of your advisor.</i> <i>All GE Area A courses and all lower division GE courses in a GE area must be completed before taking the GE Synthesis course in that area.</i>	
	ME 439/439L Major Core	4	ME 418/418L or ME 427 Major Core	4	Technical Elective Major Core	4		
	Technical Elective Major Core	3	ME 435/435L Major Core	4	EGR 403 GE Area D4	4		
	EGR 402 GE Area C4	4	ME 406/406A Major Core	4	EGR 482 GE Area B5	2		
			EGR 481 GE Area B5	2				
				<i>Request a graduation check</i>		<i>File an application for graduation</i>		
	Total Units	15	Total Units	17	Total Units	13		
					Total Units for Year	45		

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

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA
MECHANICAL ENGINEERING DEPARTMENT

2009 – 2010

COURSE
P: Prerequisite
C: Corequisite



* SEE LISTS OF APPROVED COURSES IN THIS AREAS