



California State Polytechnic University, Pomona
Degree Curriculum Sheet

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

Catalog Year **2008-2009** Name _____
Minimum Units Required **198** Student ID _____

Evaluator _____
GWT Satisfied _____ Yes _____

Required Core Courses		
Course		Units
<i>Students in this major are expected to maintain a GPA of 2.00 in all core courses.</i>		
Introduction to Aeronautics	ARO 101L	1
Introduction to Astronautics	ARO 102L	1
Introduction to Aerospace Propulsion	ARO 103L	1
Fundamentals of Systems Engineering	ARO 201L	1
Fundamentals of Aeronautics	ARO 202L	1
Fundamentals of Astronautics	ARO 203L	1
Fluid Dynamics	ARO 301	4
Low-Speed Aerodynamics and Performance	ARO 305	4
Astronautics & Spacecraft Design	ARO 309	3
Gas Dynamics	ARO 311	3
Aircraft Jet Propulsion	ARO 312	4
Aerospace Feedback Control Systems/Lab	ARO 322/L	5
Aerospace Structural Mechanics I/Lab	ARO 326/L	4
Aerospace Structural Mechanics II	ARO 327	3
Aerospace Structures	ARO 329	3
Fluid Dynamics & Heat Transfer Lab	ARO 351L	1
Aerodynamics & Jet Propulsion Lab	ARO 352L	1
Aerospace Structures Lab	ARO 357L	1
Heat, Mass & Momentum Transfer	ARO 401	4
High-Speed Aerodynamics	ARO 404	3
Aircraft Stability & Control	ARO 405	4
Advanced Dynamics of Aerospace Systems	ARO 406	4
Senior Project	ARO 461	2
Senior Project	ARO 462	2
Aerosciences	ARO 490L	1
Aerospace Vehicle Design Lab I	ARO 491L	2
Aerospace Vehicle Design Lab II	ARO 492L	2
Aerospace Vehicle Design Lab III	ARO 493L	2
Total Units		68

Elective Core Courses	
Course	Units
Approved Technical Electives	12
Total Units	12

Required Support Courses		
Course		Units
Elements of Electrical Engineering/Lab	ECE 231/231L	3/1
Analytical Geometry/Calculus 1 (B4)	MAT 114	4
Analytical Geometry/Calculus II	MAT 115	4
Analytical Geometry/Calculus III	MAT 116	4
Calculus of Several Variables I	MAT 214	3
Calculus of Several Variables II	MAT 215	3
Differential Equations	MAT 216	4
Math Analysis of Engineering Problems	MAT 318	3
Materials Science and Engineering	MTE 207	3
General Physics	PHY 131	3
General Physics Lab (B1, B3)	PHY 131L	1
General Physics/Lab	PHY 132/L	4
General Physics/Lab	PHY 133/L	4
Vector Statics	ME 214	3
Vector Dynamics	ME 215	4
CHE Thermodynamics I	CHE 302	4
General Chemistry/Lab (B1, B3)	CHM 121/L	4
Total Units		59

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
<i>Select at least one lab course from sub-area 1 or 2.</i>		IGE 222	4
1 Physical Science		IGE 223	4
2 Biological Science		IGE 224	4
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	
1 Fine 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	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/Lab and General Physics Lab	CHM 121/L B1, B3 PHY 131L B3
Analytical Geometry/Calculus 1	MAT 114 B4

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.

Aerospace Engineering Department
Aerospace Engineering Major
Curriculum Year: 2008-2009

*Your department has developed this road plan, taking into account prerequisites and schedule restrictions.
You should pay attention to these concerns when deviating from this plan.*

Year 1	Fall	Units	Winter	Units	Spring	Units	Comment
	ARO 101L Major Core	1	ARO 102L Major Core	1	ARO 103L Major Core	1	<i>Students in this major are expected to maintain a GPA of at least 2.00 in all core courses. CHM 121/L, MAT 114, and PHY 131L satisfy both major and general education requirements</i>
	MAT 114 GE Area B1	4	MAT 115 Major Support	4	MAT 116 Major Support	4	
	ENG 104 GE Area A1	4	GE Area A3	4	ME 214 Major Support	3	
	GE Area A2	4	GE Area C1	4	GE Area C2	4	
	CHM 121/L GE Area B2	4	PHY 131 Major Support	3	PHY 132/132L Major Support	4	
			PHY 131L GE Area B2	1			
Total Units	17	Total Units	17	Total Units	16	Total Units for Year	

Year 2	Fall	Units	Winter	Units	Spring	Units	Comment
	ARO 201L Major Core	1	ARO 202L Major Core	1	ARO 203L Major Core	1	<i>One course must be completed in each of the GE areas A2-3, B1-3, C1-3, D3, and E.</i>
	MAT 214 Major Support	3	ECE 231/L Major Support	4	ARO 326/326L Major Core	4	
	ME 215 Major Support	4	MAT 215 Major Support	3	MAT 318 Major Support	3	
	PHY 133/133L Major Support	4	MAT 216 Major Support	4	GE Area D3	4	
	HST 202 GE Area D1b	4	PLS 201 GE Area D1a	4	GE Area B3	3	
					MTE 207 Major Support	3	
Total Units	16	Total Units	16	Total Units	18	Total Units for Year	

Year 3	Fall	Units	Winter	Units	Spring	Units	Comment	
	ARO 322/322L Major Core	5	ARO 305 Major Core	4	ARO 312 Major Core	4		
	ARO 301 Major Core	4	ARO 311 Major Core	3	ARO 404 Major Core	3		
	CHE 302 Major Support	4	ARO 309 Major Core	3	ARO 401 Major Core	4		
	ARO 327 Major Core	3	ARO 329 Major Core	3	ARO 405 Major Core	4		
			GE Area B4	2	ARO 351L Major Core	1		
			ARO 357L	1	GE Area B4	2		
	<i>Take the Graduation Writing Test</i>							
	Total Units	16	Total Units	16	Total Units	18		
						Total Units for Year		50

Year 4	Fall	Units	Winter	Units	Spring	Units	Comment
	GE Area D2	4	ARO 462 Major Core	2	ARO 493L Major Core	2	<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>
	Approved Elective Major Core	4	Approved Elective Major Core	4	Approved Elective Major Core	4	
	ARO 352L Major Core	1	ARO 492L Major Core	2	GE Synthesis Any approved course in area C4	4	
	ARO 491L Major Core	2	ARO 406 Major Core	4	GE Synthesis Any approved course in area D4	4	
			ARO 490L Major Core	1			
	ARO 461 Major Core	2	GE Area E	4			
	GE Area C3	4					
	<i>Request a graduation check</i>				<i>File an application for graduation</i>		
Total Units	17	Total Units	17	Total Units	14		
					Total Units for Year	48	

Total Units on Plan	198	
Major Core Units	80	
Major Support Units	50	
General Education Units	68	
Unrestricted Elective Units	0	