California State Polytechnic University, Pomona
Degree Curriculum Sheet

Plan (Major) **AEROSPACE ENGINEERING** Catalog Year **2010-2011** Name _____ Evaluator _____
Subplan/Option _____ Minimum Units Required **198** Student ID _____ GWT Satisfied _____Yes ____No

Required Core Courses

Course		Units
*Students in this major are expected to **maintain** a GPA of 2.00 in all core courses.*		
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 322/322L	3/1
Aerospace Structural Mechanics I/Lab	ARO 326/326L	3/1
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
Experimental Techniques in Aerodynamics	ARO 435L	1
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
CHE Thermodynamics I	CHE 302	4
or Thermodynamics I	ME 301	(4)
General Chemistry	CHM 121	3
General Chemistry Lab (B3)	CHM 121L	1
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
or Elem Linear Algebra Diff Equations	MAT 224	(4)
Math Analysis of Engineering Problems	MAT 318	3
Vector Statics	ME 214	3
Vector Dynamics	ME 215	4
Materials Science and Engineering	MTE 207	3
General Physics (B1, B3)	PHY 131/131L	3/1
General Physics/Lab	PHY 132/132L	3/1
General Physics/Lab	PHY 133/133L	3/1
	Total Units	**59**

General Education Requirements

Area	Units	IGE (G.E. Alternative)	
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 or C3	4
1 Visual and Performing Arts		Area C4	4
2 Philosophy and Civilization		Area D4	4
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 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 Physics/Lab	PHY 131/131L	B1, B3
and General Chemistry Lab	CHM 121L	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.

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA
AEROSPACE ENGINEERING

NAME: _____
CPID: _____

CURRICULUM FLOWSHEET, 2010-11

	FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
	FALL	WINTER	SPRING	FALL	WINTER	SPRING	FALL	WINTER	SPRING	FALL	WINTER	SPRING
	INDICATES COREQUISITE	ARO 102L 1				ARO 203L 1			ARO 405 4		ARO 406 4	
	ARO 101L 1		ARO 103L 1		ARO 202L 1			ARO 305 4	ARO 312 4			
				ARO 201L 1			ARO 322/ ARO 322L 4	ARO 311 3	ARO 404 3	ARO 352L 1		
	MAT 114 4	MAT 115 4	MAT 116 4		MAT 216/ MAT 224 4		ARO 301 4		ARO 401 4	ARO 491L 2	ARO 492L 2	ARO 493L 2
			ME 214 3	ME 215 4				ARO 309 3			ARO 490L 1	
				MAT 214 3	MAT 215 3	MAT 318 3	CHE 302/ ME 301 4		ARO 351L 1	ARO ELECTIVE 4	ARO ELECTIVE 4	ARO ELECTIVE 4
		PHY 131/ PHY 131L 4	PHY 132/ PHY 132L 4	PHY 133/ PHY 133L 4		ARO 326/ ARO 326L 4	ARO 327 3	ARO 329 3		ARO 461 2	ARO 462 2	
					ECE 231/ ECE 231L 4	MTE 207 3		ARO 357L 1				
	CHM 121/ CHM 121L 4							ARO 435L 1				
	AREA C4 4	ENG 104 4		AREA A3 4		AREA B2 3		AREA B5 2	AREA B5 2	AREA C3 4		AREA D4 4
AND GE OR IGE	AREA E 4	AREA A1 4	AREA C2 4		HST 202 4	PLS 201 4				AREA D2 4	AREA C1 4	AREA D3 4
	IGE 120 4	IGE 121 4	IGE 122 4	IGE 220 4	IGE 221 4	IGE 222 4				IGE 223 4	IGE 224 4	
UNITS	17	17	16	16	16	18	15	17	18	17	17	14

TOTAL 198

Revised: 10/14/09