CAL POLY
SAN LUIS OBISPO

B.S. in AEROSPACE ENGINEERING
(Aeronautics Concentration)
Suggested 4-Year Academic Flowchart

2015-2017 Catalog

Updated 3/21/2016

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
Aerospace Fundamentals **AERO 121 (2)**	*General Chemistry for Physical Science & Engineering I* **CHEM 124 (4)** * [B3/B4]	*Calculus III* **MATH 143 (4)** (MATH 142 w/min C-) [Add'l Area B]	*Introduction to Aerospace Design* **AERO 215 (2)** (AERO 121, MATH 143, IME 144. Recom: CSC 111)	*Materials Engineering* **MATE 210 (3)** (CHEM 111, or 124, or 127. Recom: concur MATE 215)	*Aerothermo-dynamics I* **AERO 301 (4)** (ME 211; Coreq: AERO 300)	*Aerothermo-dynamics II* **AERO 302 (4)** (AERO 301)	*Aerothermo-dynamics III* **AERO 303 (4)** (AERO 302)	*Experimental Aerodynamics* **AERO 307 (2)** (AERO 302, 306, ENGL 149)	*Propulsion Systems* **AERO 401 (5)** (AERO 303, CHEM 124)	**Aeronautics Approved Electives (4)[1]**	**Aeronautics Approved Electives (4)[1]**
Calculus I **MATH 141 (4)** * [B1]	*Calculus II* **MATH 142 (4)** (MATH 141 w/min C-) [B1]	*General Physics II* **PHYS 132 (4)** (PHYS 131, HNRS 131, or PHYS 141)	*Engineering Statics* **ME 211 (3)** (MATH 241†, PHYS 131 or 141)	*Engineering Dynamics* **ME 212 (3)** (MATH 241; ME 211 or ARCE 211)	*Aerospace Engineering Analysis* **AERO 300 (5)** (AERO 215, MATH 244, ME 211, PHYS 133)	*Aerodynamics & Flight Performance* **AERO 306 (4)** (AERO 215, 301. Concur: AERO 302)	*Experimental Aerothermo-dynamics* **AERO 304 (2)** (ENGL 149, AERO 301)	*Supersonic & Hypersonic Aerodynamics* **AERO 405 (4)** (AERO 303; AERO 306 or 353)	*Aircraft Design I* **AERO 443 (4)** (Sr. Standing, IME 144, AERO 215, 303, 306, 331, 405, 420, 431, 401†)	*Aircraft Design II* **AERO 444 (3)** (AERO 443 & Sr. Standing)	*Aircraft Design III* **AERO 445 (3)** (AERO 444 & Sr. Standing)
GE (4) **	*General Physics* **PHYS 131 (4)*** **or** **141 (4)*** [Add'l Area B]	**GE (4)** **	*Calculus IV* **MATH 241 (4)** (MATH 143)	*Linear Analysis I* **MATH 244 (4)** (MATH 143)	*Statistical Methods for Engineers* **STAT 312 (4)** (MATH 142) [B6]	*Electric Circuit Theory & Lab* **EE 201 (3)** **AND** **EE 251 (1)** (MATH 244, PHYS 133)	*Aerospace Structural Analysis I* **AERO 331 (4)** (AERO 300, CE 207, ME 212)	*Aerospace Structural Analysis II* **AERO 431 (4)** (AERO 331)	*Experimental Stress Analysis* **AERO 433 (1)** (AERO 331, 431)		
Introduction to Design & Manufacturing **IME 144 (4)** (Recom: IME 140, ME 129)			*General Physics III* **PHYS 133 (4)** (PHYS 131, or PHYS 141, or HNRS 131; MATH 142. Recom: MATH 241)	*Mechanics of Materials I* **CE 204 (3)** (ME 211)	*Mechanics of Materials II* **CE 207 (2)** (CE 204)	*Fundamentals of Dynamics and Control* **AERO 320 (4)** (AERO 300, ME 212)	*Aircraft Dynamics & Control* **AERO 420 (4)** (AERO 306 and 320)	**Aeronautics Approved Electives (4)[1]**	*Aerospace Engineering Professional Preparation* **AERO 460 (1)** (Sr Standing)	*Aerospace Systems Senior Laboratory* **AERO 465 (1)** (AERO 303, 304, 320, 431, Sr Standing)	**GE (4)** **
Expository Writing **ENGL 133 or 134 (4)**** [A1] Can be taken anytime during Freshman Year											
Oral Communication **COMS 101 or 102 (4)**** [A2] Can be taken anytime during Freshman Year			**Take concurrently:** **BIO 213 (2)*** **AND** **BMED/BRAE 213 (2)*** [B2]	**GE (4)** **				**GE (4)** **	**GE (4)** **	**GE (4)** **	**GE (4)** **
	Technical Writing for Engineers **ENGL 149 (4)** [A3] (Completion of GE A1 w/min C-, Recom: completion of GE A2) Can be taken anytime between Winter of Freshman and Winter of Sophomore Years					**Graduation Writing Requirement GWR*** (Students can attempt to fulfill the requirement after 90 earned units; students should complete the requirement before senior year)					
18	16	16	17	17	15	16	14	18	15	12	15

TOTAL: 189

Notes:

MOST GENERAL EDUCATION COURSES CAN BE TAKEN IN ANY ORDER AS LONG AS PREREQUISITES ARE MET

* Refer to current catalog for prerequisites.

** One course from each of the following GE areas must be completed: A1, A2, C1, C2, C3, C4, D1, D2, D3, D4. C4 should be taken only after Junior standing is reached (90 units).

Refer to online catalog for GE course selection, United States Cultural Pluralism (USCP) and Graduation Writing Requirement (GWR).

USCP requirement can be satisfied by some (but not all) courses within GE categories: C3, C4, D1, D3, or D4.

† Course can be taken previously or concurrently.

[1] Consultation with advisor is recommended prior to selecting approved electives; bear in mind your selections may impact pursuit of postbaccalaureate studies and/or goals.

Legend:

Course Title
Course # (Units)
(Prerequisite)
[GE Area]

Major (47)
Support (61)
Concentration (41)
General Ed. (40)