

B.S. in AEROSPACE ENGINEERING
Suggested 4-Year Academic Flowchart

2019-2020 Catalog

Updated 6/18/2019

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
Aerospace Fundamentals AERO 121 (2)	General Physics IA PHYS 141 (4) * [Add'l Area B]	General Physics II PHYS 132 (4) (PHYS 131, HNRS 131, or PHYS 141)	Introduction to Aerospace Design AERO 215 (2) (AERO 121; MATH 143; IME 144, Recom: CSC 111)	Mechanics of Materials I CE 204 (3)¹ (ME 211)	Mechanics of Materials II CE 207 (2)¹ (CE 204)	Aerospace Fluid Mechanics AERO 302 (4) (ME 212; AERO 300†, Recom: AERO 215; 299 or 301)	Aerospace Gas Dynamics and Heat Transfer AERO 303 (4) (AERO 299 or 301; 302)	Aerospace Structural Analysis II AERO 431 (4) (AERO 331)	Experimental Stress Analysis AERO 433 (1) (AERO 331; 431)	Aerospace Systems Senior Laboratory AERO 465 (1) (AERO 303; 320; 431; Sr Standing)	
Calculus I MATH 141 (4) * [B1]	Calculus II MATH 142 (4) (MATH 141 w/min C-) [B1]	Calculus III MATH 143 (4) (MATH 142 w/min C-) [Add'l Area B]	Calculus IV MATH 241 (4) (MATH 143)	Aerospace Systems Engineering & Integration AERO 220 (1) (AERO 121)	Aerospace Thermodynamics AERO 299 (4) (ME 212; AERO 300†, Recom: AERO 215)	Fundamentals of Dynamics and Control AERO 320 (4) (AERO 300; ME 212, AERO 321†)	Aerospace Structural Analysis I AERO 331 (4) (AERO 300; CE 207 or 208; ME 212)	Fundamentals of Systems Engineering AERO 350 (2) (AERO 220)	Aerospace Engineering Professional Preparation AERO 460 (1) (Sr Standing)	Concentration (3)	Concentration (3)
	General Chemistry for Physical Science & Engineering I CHEM 124 (4) * [B3/B4]		General Physics III PHYS 133 (4) (PHYS 131; 141, or HNRS 131; MATH 142, Recom: MATH 241)	Materials Engineering MATE 210 (3) (CHEM 111, 124, or 127, Recom: concur MATE 215)	Aerospace Engineering Analysis AERO 300 (5) (AERO 215; MATH 244; ME 211; PHYS 133)	Experimental Sensors, Actuators & Control AERO 321 (1) (AERO 320†)	Concentration (4)	Concentration (2)	Concentration (3)	Concentration (4)	Concentration (4)
Introduction to Design & Manufacturing IME 144 (4) (Recom: IME 140 or ME 129)			Engineering Statics ME 211 (3) (MATH 241†; PHYS 131 or 141)	Engineering Dynamics ME 212 (3) (MATH 241; ME 211 or ARCE 211)	Electric Circuit Theory & Lab EE 201 (3) (MATH 244; PHYS 133) & EE 251 (1)	Statistical Methods for Engineers STAT 312 (4) (MATH 142) [B6]		Concentration (4)	Concentration (5)	GE (4) **	GE (4) **
Expository Writing ENGL 133/134 (4)** [A1]			Take concurrently BIO 213 (2)* & BMED/BRAE 213 (2)* [B2]	Linear Analysis I MATH 244 (4) (MATH 143)		Concentration (4)	GE (4) **	Concentration (4)	GE (4) **	GE (4) **	GE (4) **
Oral Communication COMS 101/102 (4)** [A2]											
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	14	15	17	16	16	14	16	15
										TOTAL:	190

Fall:
CEA Madrid, Spain
CEA Paris, France

Summer:
TECNUN, Spain
Munich, Germany
Cal Poly Affiliated Programs

Summer:
CEA Barcelona, Spain
Cal Poly Affiliated Program

Summer:
TECNUN, Spain
CEA Barcelona, Spain
Cal Poly Affiliated Program

*Please visit the International Center to learn about Cal Poly affiliated programs and the types of courses that can be taken abroad. Because AERO course are offered once a year, summer programs tend to work the best to stay on track. If you are extending your graduation, meet with an IEP advisor to discuss your options.