

B.S. in AEROSPACE ENGINEERING (Astronautics Concentration)

Suggested 4-Year Academic Flowchart

Fall	FRESHMAN Winter	Spring	Fall	SOPHOMORE Winter	Spring	Fall	JUNIOR Winter	Spring	Fall	SENIOR 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)	Spacecraft Attitude Dynamics & Control AERO 421 (4) (AERO 320, 351)	Spacecraft Propulsion Systems AERO 402 (5) (AERO 303, 353, CHEM 124)	Astronautics Approved Electives	Astronautic: 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)	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, MAIH 244, ME 211, PHYS	Introduction to Orbital Mechanics AERO 351 (4) (AERO 300, ME 212)	Experimental Aerothermo- dynamics AERO 304 (2) (ENGL 149, AERO 301)	Introduction to Space Systems AERO 446 (4) (ME 212, EE 201 & 251, AERO 353)	Spacecraft Design I AERO 447 (4)	Spacecraft Design II AERO 448 (3)	Spacecraft Design III AERO 449 (3 (AERO 448)
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)	Experimental Stress Analysis AERO 433 (1) (AERO 331, 431)		GE (4) **
Introduction to Design & Manufacturing IME 144 (4) (Recom: IME 140, ME 129) Expository Writing ENGL 133 or 134 (4)** [A1] Can be taken anytime during Freshman Year		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)	Spacecraft Environment AERO 353 (4) (AERO 300 & 301)	Space Environment Laboratory AERO 354 (2) ENGL 149, AERO 353)	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) **	
	ication COMS 101 or aken anytime during Frest		Take concurrently: BIO 213 (2)* AND BMED/BRAE 213 (2)* [B2]	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
Notes: Legend:										TOTAL:	189

* Refer to current catalog for prerequisites.

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.

^{**} 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).

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. Only 4 units of 300-level coursework is allowed as an approved elective.