Aerospace Systems and Mission Design B.S. *(at least 120 credits required to graduate)*

Fall 2025 Catalog (Effective curriculum started fall semester of 2025)

First Year		
Fall: 13 Credits	AES 1050 (3) Introduction to Space • *Recommended Natural and Physical Sciences GS*	
	AES 1910 (3) Aerospace Industry Exploration & Analysis	
	MTH 1110 (4) College Algebra for Calculus • *Recommended Quantitative Literacy GS*	
	Written Communication General Studies (3)*	
Spring: 16 Credits	MTH 1120 (3) College Trigonometry	
	CHE 1800 (4) General Chemistry	
	Written Communication General Studies (3)*	
	Historical General Studies (3)*	
	Oral Communication General Studies (3)*	
Second Year		
Fall: 14 Credits	CS 1050 (4) Computer Science I	
	MTH 1410 (4) Calculus I	
	IND 3000 (3) Design Thinking • *Recommended Social and Behavioral Sciences GS and Elective Course for Major*	
	Arts & Humanities General Studies (3)*	
Spring: 14 Credits	AES 2607 (3) Introduction to Aerospace System Simulation	
	PHY 2311 (4) General Physics I • *Recommended Natural and Physical Sciences GS*	
	PHY 2321 (1) General Physics Laboratory I • *Recommended Natural and Physical Sciences GS*	
	JMP 2610 (3) Introduction to Technical Writing	
	CSS 2751 (3) Principles of Cybersecurity	

Third Year		
Fall: 12 Credits	AES 2630 (3) Spacecraft Mission Operations I	
	AES 3600 (3) Space Flight Operations I	
	PHI 3370 (3) Computers, Ethics, and Society • *Recommended Arts and Humanities GS and Elective Course for Major*	
	CET 3120 (3) Engineering Economy • *Recommended Social and Behavioral Sciences GS and Elective Course for Major*	
Spring: 17 Credits	AES 3640 (4) Fundamentals of Aerospace Systems Analysis and Design	
	AES 4601 (3) Space Flight Operations II	
	GIS 2250 (4) Geographic Information Systems	
	EET 2000 (3) Electric Circuits & Machines	
	Elective Course for Major (3)	
Fourth Year		
Fall: 15 Credits	AES 3620 (3) Aerospace Systems Project & Mission Scheduling	
	AES 4602 (3) Aerospace Commercialization Operations	
	AES 4603 (3) Aerospace Operations Systems Analysis & Design	
	GIS 4840 (3) Remote Sensing	
	Ethic Studies & Social Justice Requirement (3)	
Spring: 12 Credits	AES 4640 (3) Aerospace Model-Based Systems Analysis	
	AES 4650 (3) Aerospace Software & Mission Visualization Tools	
	Elective Course for Major (3)	
	Elective Course for Major (3)	

* Global Diversity requirement would need to be fulfilled. Academic advisors can provide more detail.