

2025 Catalog				Last Updated: Sept 2025
Semester	Class Name	Course ID	Credits	Prereqs
Semester 1	Calculus I	MATH 1650	4	C- or better in MATH 1430 (or satisfactory score on placement exam)
	Chemistry for Engineers	CHEM 1670 (or CHEM 1770 and 1770L)	4	1 yr HS Chem or CHEM 0500. Math Placement of MATH 1430 or higher.
	Engineering Problem Solving	AERE 1600	3	Credit or enrollment in MATH 1650
	Intro to College Research	LIB 1600	1	English placement for non-native English speakers
	English Composition I	ENGL 1500	3	English placement for non-native English speakers
	Engineering Orientation	ENGR 1010	R	N/A
Semester 2	Calculus II	MATH 1660	4	C- or better in MATH 1650
	Classical Physics I	PHYS 2310 & 2310L	5	Credit for MATH 1650. Credit or enrollment in MATH 1660.
	Num., Graph. & Lab. Techniques for AERE	AERE 1610	4	Credit or enrollment in AERE 1600
	Engineering Foundations of Statics	CE 2710	1	Credit for MATH 1650. Credit or enrollment in PHYS 2310/2310L.
	Gen Ed	<u>See AERE Website for Options.</u>	3	<u>See Course Catalog for Prereqs.</u>
	Aerospace Seminar	AERE 1920	R	N/A

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Semester 3	Calculus III	MATH 2650	4	C- or better in MATH 1660
	Classical Physics II	PHYS 2320 (No lab needed for 2023 catalog and beyond)	4	Credit for PHYS 2310/2310L. Credit for MATH 1660.
	Intro to Material Sciences and Engineering	MATE 2730	3	Credit for CHEM 1670 or 1770. Credit for MATH 1650.
	Applied Engineering Statics	CE 2720	2	Credit for CE 2710. Credit for PHYS 2310/2310L. Credit or enrollment in MATH 1660.
	English Composition II	ENGL 2500	3	Credit or enrollment in LIB 1600. Credit or exemption from ENGL 1500.
Semester 4	Differential Equations	MATH 2670	4	C- or better in MATH 1660
	Dynamics	ME 3450	3	Credit for CE 2740. Credit or enrollment in MATH 2670.
	Intro to Performance & Design	AERE 2610	3	Credit for MATH 1660 & PHYS 2310/2310L. Credit or enrollment in AERE 1610.
	Mechanics of Materials	EM 3240	3	Credit for CE 2740.
	Technical Communication	ENGL 3090 or 3140	3	Credit for ENGL 2500 & Junior classification.

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Semester 5	Flight Structures	AERE 3210	3	Credit for EM 3240. Credit or enrollment in MATH 2670.
	Structures Lab	AERE 3220	2	Credit or enrollment in AERE 3210.
	Thermodynamics I	ME 2310	3	Credit for MATH 1660, CHEM 1670, & PHYS 2310/2310L.
	Aerodynamics I: Incompressible Flow	AERE 3100	3	Credit for MATH 2650. C- or better in AERE 2610.
	Astroynamics I	AERE 3510	3	Credit for ME 3450.
	Aircraft Flight Dynamics & Controls	AERE 3550	3	Credit for AERE 2610, MATH 2670, & ME 3450.
	Flight Experience	AERE 3010	R	Credit or enrollment in AERE 3550.
Semester 6	Advanced Flight Structures	AERE 4210	3	Credit for AERE 3210 & MATH 2670.
	Computation Tech. for AERE Design	AERE 3610	3	Credit for AERE 3100, MATH 2670, EM 3240, ME 3450, and (ENGL 3090 or ENGL 3140).
	Aerospace Systems	AERE 3620	3	Credit for ENGL 2500 & Junior classification.
	Aerodynamics II: Compressible Flow	AERE 3110	3	Credit for AERE 3100 & ME 2310. Take concurrently with AERE 3440.
	Aerodynamics & Propulsion Lab	AERE 3440	3	Credit for AERE 3100. Take concurrently with AERE 3110.
	Flight Control Systems I	AERE 3310	3	Credit for AERE 3550.

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Semester 7	Technical Elective	See AERE Website for Options.	3	See Course Catalog for Prereqs.
	Astronautics Requirement	AERE 4150 or AERE 4330	3	AERE 4150: Credit for AERE 3110 & AERE 3440. AERE 4330: Credit for ME 3450
	Modern Design Methodology (Senior Design Capstone I) {choose either 4610 or 4600X}	AERE 4610 (ASTRO applications)	3	Credit for AERE 3210, AERE 3220, AERE 3510, AERE 3550, AERE 3110, AERE 3440, & AERE 3610.
		AERE 4600X (AERO applications)	3	Credit for AERE 3210, AERE 3220, AERE 3550, AERE 3110, AERE 3440, & AERE 3610.
	Aerospace Vehicle Propulsion	AERE 4110	3	Credit for AERE 3110 & AERE 3440.
	Gen Ed	See AERE Website for Options.	3	See Course Catalog for Prereqs.
Semester 8	Technical Elective	See AERE Website for Options.	3	See Course Catalog for Prereqs.
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	Design of Systems (Senior Design Capstone II) {choose either 4620 or 4700X}	AERE 4620 (ASTRO)	3	Credit for AERE 4610.
		AERE 4700X (AERO)	3	Credit for AERE 4600X.
	Gen Ed	See AERE Website for Options.	3	See Course Catalog for Prereqs.
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