

Aerospace Engineering 5 year Curriculum (starting with MATH 104), Effective Fall 2018 8/31/2018

First Year		Second Year		Third Year		Fourth Year		Fifth Year	
Fall 14.25 credit hours	Spring 12.25 credit hours	Fall 14.25 credit hours	Spring 13.25 credit hours	Fall 14.25 credit hours	Spring 14.25 credit hours	Fall 14.25 credit hours	Spring 16.25 credit hours	Fall 12 credit hours	Spring 13 credit hours
MATH 104* Pre-Calc PRE: MATH 002, or two years of high school algebra and 22+ on math ACT Sp, Su, F, 5 hrs ≥C-	MATH 125* Calc I PRE: MATH 103 or 104, or 3 years of college prep math including trigonometry with 28+ on math ACT Sp, Su, F, 4 hrs ≥C-	MATH 126* Calc II PRE: MATH 125 with C or higher Sp, Su, F, 4 hrs ≥C-	MATH 220* Applied Diff Eq PRE: MATH 126 Sp, Su, F, 3 hrs ≥C-	MATH 290* Elementary Linear Algebra PRE: MATH 126 Sp, Su, F, 2 hrs ≥C-	AE 360 Intro to Astronautics PRE: MATH 126 Co-req: course in computer programming Sp, 3hrs	AE 550 Dynamics of Flight I PRE: AE 445 and MATH 220 Co-req: MATH 290 F, 4 hrs	AE 551 Dynamics of Flight II PRE: AE 550 Sp, 4 hrs	AE 521 Aircraft Design I PRE: AE 421, AE 508, AE 551, and AE 572 F, 4 hrs	AE 522/3/4 Design II PRE for 522 and 524: AE 521 PRE for 523: AE 521 and AE 560 Sp, 4 hrs
KU Core Elective** GE 2.1 (x2) ¹ -Written Communications 3 hrs	KU Core Elective** GE 2.1 (x2) ¹ -Written Communications 3 hrs	KU Core Elective** GE 3H, ECON, AE 4.1, or AE 4.2 3 hrs	AE 211* Computing for Engrs PRE: MATH 125 Sp, F, 3 hrs ≥C-	CE 301* Statics & Dynamics PRE: PHSX 210 and MATH 126 Sp, Su, F, 5 hrs ≥C-	CE 310* Strength of Materials PRE: CE 201 or CE 301 Co-req: MATH 220 Sp, Su, F, 4 hrs ≥C-	AE 571 Rep. Propulsion PRE: AE 445 and ME 312 F, 3 hrs	AE 572 Jet Propulsion PRE: AE 545 and AE 571 Sp, 3 hrs	AE 510 Materials & Processes PRE: AE 507 and CHEM 130 or 150 F, 4 hrs	Tech Elective*** 3 hrs
KU Core Elective** GE 3H, ECON, AE 4.1, or AE 4.2 3 hrs	CHEM 130**** General Chem I PRE: eligible for MATH 115 Sp, F, 5 hrs	AE 245* Intro to Aero PRE: none Co-req: MATH 125 F, 3 hrs ≥C-	ME 312* Thermodynamics PRE: PHSX 210, MATH 126 Sp, Su, F, 3 hrs ≥C-	AE 345* Fluid Dynamics Co-Req: CE 301 or MATH 220 Su, F, 3 hrs ≥C-	AE 445* Aerodynamics & Performance PRE: AE 345, CE 301 Sp, Su, 3 hrs ≥C-	AE 545 Aerodynamics PRE: AE 445, ME 312, MATH 127, and MATH 220 F, 4 hrs	AE 421 Computer Graphics Co-Req: CE 310 Sp, 3 hrs	AE 590 Senior Seminar PRE: Senior standing F, 1 hr	Tech Elective*** 3 hrs
KU Core Elective** GE 3H, ECON, AE 4.1, or AE 4.2 3 hrs	AE 290 Colloquium PRE: none Sp, F, .25 hr	PHSX 210 & 216* Physics I + Lab PRE: MATH 125 with a C or higher Co-req: MATH 126 Sp, F, 4 hrs ≥C-	PHSX 212 & 236* Physics II + Lab PRE: PHSX 210 and MATH 125 Co-req: MATH 126 Sp, Su, F, 4 hrs ≥C-	MATH 127* Calc III PRE: MATH 126 Sp, Su, F, 4 hrs	EECS 316 & 318 Circuits, Elec, & Inst. PRE: A course in differential equations and 8 hours of Physics Sp, 4 hrs	AE 507 Aero. Structures I PRE: CE 310 F, 3 hrs	AE 430 Aerospace Inst. PRE: AE 445 and EECS 318 Sp, 3 hrs	Tech Elective*** 3 hrs	KU Core Elective** GE 3H, ECON, AE 4.1, or AE 4.2 3 hrs
AE 290 Colloquium PRE: none Sp, F, .25 hr		AE 290 Colloquium PRE: none Sp, F, .25 hr	AE 290 Colloquium PRE: none Sp, F, .25 hr	AE 290 Colloquium PRE: none Sp, F, .25 hr	AE 290 Colloquium PRE: none Sp, F, .25 hr	AE 290 Colloquium PRE: none Sp, F, .25 hr	AE 508 Aero. Structures II PRE: AE 507 Sp, 3 hrs		
							AE 290 Colloquium PRE: none Sp, F, .25 hr		

*Students must pass the course with a “C-” or higher

**Students must ensure the electives they choose fulfill all remaining KU Core requirements.

***Technical electives are selected from graduate level aerospace courses, approved courses from other engineering departments, or approved math courses.

****CHEM 130 can be substituted for CHEM 150. Student must be eligible to for MATH 115 to take CHEM 130

¹Students must be enrolled in written communications courses (KU Core GE 2.1) continuously until the requirement is satisfied.