

# Aerospace Engineering 5 year Curriculum, Effective Spring 2018 2/22/2018

First Year		Second Year		Third Year		Fourth Year		Fifth Year	
Fall 13.25 credit hours	Spring 14.25 credit hours	Fall 15.25 credit hours	Spring 14.25 credit hours	Fall 13.25 credit hours	Spring 13.25 credit hours	Fall 14.25 credit hours	Spring 13.25 credit hours	Fall 12 credit hours	Spring 10 credit hours
<b>MATH 125*</b> <b>Calc I</b>  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	<b>MATH 126*</b> <b>Calc II</b>  PRE: MATH 121 or 125 with C≥	<b>MATH 220*</b> <b>Applied Diff Eq</b>  PRE: MATH 126  Sp, Su, F, 3 hrs ≥C	<b>Math 127</b> <b>Calc III</b>  PRE: MATH 126  Sp, Su, F, 4 hrs	<b>Math 290*</b> <b>Elementary Linear Algebra</b>  PRE: MATH 126  Sp, Su, F, 2 hrs C≥	<b>AE 360</b> <b>Intro to Astronautics</b>  PRE: MATH 126 Co-req: course in computer programming  Sp, 3 hrs	<b>AE 550</b> <b>Dynamics of Flight I</b>  PRE: AE 445 and MATH 220 Co-Req: MATH 290  F, 4 hrs	<b>AE 551</b> <b>Dynamics of Flight II</b>  PRE: AE 550  Sp, 4 hrs	<b>AE 521</b> <b>Aircraft Design I</b>  PRE: AE 421, 508, 551, and 572  F, 4 hrs	<b>AE 522/3/4</b> <b>Design II</b>  PRE for 522 and 524: AE 521  PRE for 523: AE 521 and AE 560  Sp, 4 hrs
<b>KU Core Elective**</b>  GE 2.1 (x2) <sup>1</sup> -Written Communications  3 hrs	<b>KU Core Elective**</b>  GE 2.1 (x2) <sup>1</sup> -Written Communications  3 hrs	<b>AE 345*</b> <b>Fluid Dynamics</b>  Co-Req: CE 301 or MATH 220  Su, F, 3 hrs ≥C	<b>AE 445*</b> <b>Aerodynamics &amp; Performance</b>  PRE: AE 345, CE 301  Sp, Su, 3 hrs ≥C	<b>AE 507</b> <b>Aero. Structures I</b>  PRE: CE 310  F, 3 hrs	<b>AE 508</b> <b>Aero. Structures II</b>  PRE: AE 507  Sp, 3 hrs	<b>AE 571</b> <b>Rep. Propulsion</b>  PRE: AE 445 and ME 312  F, 3 hrs	<b>AE 572</b> <b>Jet Propulsion</b>  PRE: AE 545 and 571  Sp, 3 hrs	<b>AE 510</b> <b>Materials &amp; Processes</b>  PRE: AE 507 and CHEM 130 or 150  F, 4 hrs	<b>Tech Elective***</b>  3 hrs
<b>AE 245*</b> <b>Intro to Aero</b>  PRE: none Co-req: MATH 125  F, 3 hrs ≥C	<b>PHSX 210 &amp; 216*</b> <b>Physics I + lab</b>  PRE: MATH 125 with a C or higher Co-req: MATH 126  Sp, F, 4 hrs ≥C	<b>PHSX 212 &amp; 236*</b> <b>Physics II + lab</b>  PRE: PHSX 210 and MATH 125 Co-req: MATH 126  Sp, Su, F, 4 hrs ≥C	<b>ME 312*</b> <b>Thermodynamics</b>  PRE: PHSX 210, MATH 126  Sp, Su, F, 3 hrs ≥C	<b>KU Core Elective**</b>  GE 3H, ECON, AE 4.1, or AE 4.2  3 hrs	<b>KU Core Elective**</b>  GE 3H, ECON, AE 4.1, or AE 4.2  3 hrs	<b>AE 545</b> <b>Aerodynamics</b>  PRE: AE 445, ME 312, MATH 127, and MATH 220  F, 4 hrs	<b>AE 421</b> <b>Computer Graphics</b>  Co-Req: CE 310  Sp, 3 hrs	<b>AE 590</b> <b>Senior Seminar</b>  PRE: Senior standing  F, 1 hr	<b>Tech Elective***</b>  3 hrs
<b>KU Core Elective**</b>  GE 3H, ECON, AE 4.1, or AE 4.2  3 hrs	<b>AE 211*</b> <b>Computing for Engrs</b>  PRE: MATH 125  Sp, F, 3 hrs ≥C	<b>CE 301*</b> <b>Statics &amp; Dynamics</b>  PRE: PHSX 210 and MATH 126  Sp, Su, F, 5 hrs ≥C	<b>CE 310*</b> <b>Strength of Materials</b>  PRE: CE 201 or CE 301 Co-req: MATH 220  Sp, Su, F, 4 hrs ≥C	<b>CHEM 150****</b> <b>Chem for Engr</b>  PRE: Completed HS chem, eligible for MATH 125  F, 5 hrs	<b>EECS 316 &amp; 318</b> <b>Circuits, Elec. &amp; Inst.</b>  PRE : A course in differential equations and 8 hours of Physics  Sp, 4 hrs	<b>KU Core Elective**</b>  GE 3H, ECON, AE 4.1, or AE 4.2  3 hrs	<b>AE 430</b> <b>Aerospace Inst.</b>  PRE: AE 445 and EECS 318  Sp, 3 hrs	<b>Tech Elective***</b>  3 hrs	
<b>AE 290</b> <b>Colloquium</b>  PRE: none  Sp, F, .25 hr	<b>AE 290</b> <b>Colloquium</b>  PRE: none  Sp, F, .25 hr	<b>AE 290</b> <b>Colloquium</b>  PRE: none  Sp, F, .25 hr	<b>AE 290</b> <b>Colloquium</b>  PRE: none  Sp, F, .25 hr	<b>AE 290</b> <b>Colloquium</b>  PRE: none  Sp, F, .25 hr	<b>AE 290</b> <b>Colloquium</b>  PRE: none  Sp, F, .25 hr	<b>AE 290</b> <b>Colloquium</b>  PRE: none  Sp, F, .25 hr	<b>AE 290</b> <b>Colloquium</b>  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 upper 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

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