

<b>AEROSPACE ENGINEERING</b>										2018-2019					
Cr. Hrs.	SEM 1	Cr. Hrs.	SEM 2	Cr. Hrs.	SEM 3	Cr. Hrs.	SEM 4	Cr. Hrs.	SEM 5	Cr. Hrs.	SEM 6	Cr. Hrs.	SEM 7	Cr. Hrs.	SEM 8
4	<b>MATH 1220 or 1700 Calculus I</b>	4	<b>MATH 1230 or 1710 Calculus II</b>	4	<b>MATH 2720 Multi-Variable Calculus</b>	4	<b>MATH 3740 Differential Equations</b>	4	<b>AE 3610 Aerodynamics I (L) (F)</b>	3	<b>AE 3710 Aerodynamics II (Sp)</b>	3	<b>AE 4600 Aircraft Stability &amp; Control (F)</b>	3	<b>AE 4690 Aircraft Design (Sp)</b>
	MATH 1180 ≥ C or placement		MATH 1220 or 1700 ≥ C		MATH 1230 or 1710 ≥ C		MATH 2720 ≥ C		MATH 2720 ≥ C PHYS 2050+2060 ≥ C AE 2610 or ME 3560 ≥ C		AE 3610 ≥ C MATH 3740 ≥ C ME 2580 ≥ C		AE 3710 ≥ C ME 3600 ≥ C		AE 4600 ≥ C AE 3800 ≥ C
3+1	<b>CHEM 1100+1110 Chemistry I (L)</b>	4+1	<b>PHYS 2050+2060 University Physics I (L)</b>	4+1	<b>PHYS 2070+2080 University Physics II (L) (F, Sp, Su2)</b>	3	<b>ME 2570 Mechanics of Materials (F,Sp)</b>	3	<b>ME 3600 Control Systems (F, Sp, Su1)</b>	3	<b>AE 3800 Flight Vehicle Performance (Sp)</b>	3	<b>AE 4630 Aircraft Structural Design (F)</b>	3	<b>AE 4760 Aerospace Propulsion II</b>
	MATH 1110 ≥ C or placement		MATH 1220 or 1700 ≥ C MATH 1230 or 1710 ≥ C or taking concurrently		PHYS 2050 ≥ C MATH 1230 or 1710 ≥ C		ME 2560 ≥ C		ME 2580 ≥ C MATH 3740 ≥ C ECE 2100 ≥ C		AE 3710 ≥ C or taking concurrently		ME 2570 ≥ C		AE 4660 ≥ C
3	<b>EDMM 1420 Engineering Graphics (L) (F, Sp)</b>	3	<b>AE 2610 Intro to Aerospace Engineering (F, Sp)</b>	3	<b>ME 2320 Thermodynamics I (F, Sp, Su1)</b>	4	<b>ECE 2100 Circuit Analysis I (L) (F, Sp, Su1)</b>	3	<b>ME 3620 Theory of Engineering Experimentation (F, Sp)</b>	3	<b>ME 3350 Instrumentation (L) (F, Sp, Su1)</b>	3	<b>AE 4660 Aerospace Propulsion I (F)</b>	3	<b>ME 4800 Aero Engineering Project (L) (F, Sp)</b>
			PHYS 2050 + 2060 ≥ C or taking concurrently		MATH 1230 or 1710 ≥ C PHYS 2050/2060 ≥ C		MATH 1230 or 1710 ≥ C		MATH 1230 or 1710 ≥ C CS 1060 or CS 1022 or CS 1023 or CS 1110 or CS 1200 ≥ C		ME 2570 ≥ C ME 3620 ≥ C ECE 2100 ≥ C Writing Requirement ≥ C		ME 2320 ≥ C ME 3560 or AE 3710 ≥ C		ME 4790 ≥ C Group 2 elec or AE 4500 or AE 4600 ≥ C
3	<b>IEE 1020 Technical Communication (F, Sp, Su1 or Su2)</b>	3	<b>CS 1200 Programming in C for Engineers (L) (F, Sp)</b>	3	<b>ME 2560 Statics (F, Sp, Su1)</b>	3	<b>ME 2580 Dynamics (F, Sp, Su1)</b>	3	<b>GEN ED III* U.S. Cultures &amp; Issues</b>	3	<b>AE 4700 Orbital Mechanics (Sp)</b>	3	Aerospace Elective (See page 2)	3	Aerospace Elective (See page 2)
	ENGL 1000 ≥ C or placement		MATH 1180 ≥ C or taking concurrently		MATH 1230 or 1710 ≥ C PHYS 2050/2060 ≥ C		ME 2560 or 2530 ≥ C PHYS 2050/2060 ≥ C				ME 2580 ≥ C		ME 2580 ≥ C		
2	<b>GEN ED VIII* Health &amp; Well Being</b>	3	<b>GEN ED II* Humanities</b>	3	<b>GEN ED V* Social/Behavioral Science</b>	3	<b>CHEM 1120 Chemistry II</b>	3	<b>GEN ED IV* Other Cultures &amp; Civilizations</b>	4	<b>GEN ED I* Fine Arts</b>	1	<b>ME 4790 Aero Engineering Project planning (F, Sp, Su1)</b>	3	Aerospace Elective (See page 2)
							CHEM 1100 and 1110 ≥ C					ME 3350 ≥ C ME 3600 ≥ C		AE 4600 or AE 4630 ≥ C or taking concurrently	
						4	<b>PHYS 3090 Introductory Modern Physics</b>								
							PHYS 2070 ≥ C MATH 2300 or 2720 ≥ C								
	16 hours		18 hours		18 hours		17-18 hours		16 hours		16 hours		13 hours		15 hours
															<i>128 hours total</i>

NOTES: Prerequisite courses are shown in smaller print.

\* See your academic advisor for General Education requirements.

50 Cr. Pre-Engineering Req.

56 Cr. AE Req.

14 Cr. Gen Ed Req.

9 Cr. AE Elective Req.

A 'C' or better is required for admission to upper level CEAS courses

## AEROSPACE ENGINEERING ELECTIVES--SELECT THREE OF THE FOLLOWING

Thermal/Fluid Science									
3	<b>AE 5200</b> <b>Advanced</b> <b>Aerodynamics</b>	3	<b>ME 4310</b> <b>Heat Transfer</b>	3	<b>ME 4320</b> <b>Thermodynamics II</b>	3	<b>ME 5300</b> <b>Theoretical &amp;</b> <b>Computational Fluids</b>	3	<b>ME 5450</b> <b>Computational Fluid</b> <b>Dynamics I</b>
	AE 3710 ≥ B		ME 2320 ≥ C		ME 2320 ≥ C		ME 3560 or AE 3710 ≥ B		ME 3560 or AE 3710 ≥ B
			ME 3560 or AE 3710 ≥ C		ME 3560 or AE 3710 ≥ C or taking concurrently				CS 2010 ≥ B

Structures/Material Science							
3	<b>AE 5100</b> <b>Foundations of</b> <b>Structural Mechanics</b>	3	<b>ME 4570</b> <b>Experimental Solid</b> <b>Mechanics</b>	3	<b>ME 5610</b> <b>Finite Element Method</b>	3	<b>ME 5690</b> <b>Principles of Fatigue &amp;</b> <b>Fracture</b>
	AE 4630 ≥ B		ME 3350 ≥ C		ME 2570 ≥ B		ME 3650 or AE 4630 ≥ B
			ME 3650 or AE 4630 ≥ C		ME 3560 ≥ B		
					ME 4310 ≥ B		
					MATH 3740 ≥ B		

Flight Dynamics & Control									
3	<b>AE 4590</b> <b>Flight Test Engineering</b> <b>&amp; Design</b>	3	<b>AE 5400</b> <b>Aerospace Vehicle</b> <b>Dynamics</b>	3	<b>ME 4710</b> <b>Motion &amp; Control</b>	3	<b>ME 5410</b> <b>Continuous System</b> <b>Modeling &amp; Simulation</b>	3	<b>ME 5430 Mechanical</b> <b>Systems Control</b>
	AE 4600 ≥ C		ME 2580 ≥ B		ME 3600 ≥ C		ME 3600 ≥ B		ME 3600 ≥ B
			ME 3600 ≥ B						

System/Component Design		
3	<b>ME 3650</b> <b>Machine Design</b>	
	EDMM 1420 ≥ C	
	ME 2570 ≥ C	
	ME 2580 ≥ C	
	ME or AE 2500 ≥ C	
	ME 2615 or AE 2610 ≥ C	