

Aerospace Engineering 5 Year Plan of Study for ROTC Students

First Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
CHEM 1035	General Chemistry <i>Co: MATH 1025 or MATH 1225</i>	3	ENGE 1216	Foundations of Engineering (C-) <i>Pre: ENGE 1215 (C-)</i>	2
CHEM 1045	General Chemistry Lab <i>Co: CHEM 1035</i>	1	ENGL 1106	First-Year Writing <i>Pre: ENGL 1105</i>	3
ENGE 1215	Foundations of Engineering (C-)	2	MATH 1226	Calculus of a Single Variable <i>Pre: MATH 1225 (C-)</i>	4
MATH 1225	Calculus of a Single Variable (C-) <i>Pre: Math Ready</i>	4	PHYS 2305	Foundations of Physics <i>Pre: (MATH 1205 or MATH 1205H or MATH 1225) or (MATH 1206 or MATH 1206H or MATH 1226); Co: 2325 or (MATH 1206 or MATH 1206H or MATH 1226)</i>	4
ENGL 1105	First-Year Writing ROTC	3 Varies		ROTC	Varies
Total Credit Hours		13 - 18	Total Credit Hours		13 - 18

Second Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
AOE 2104	Introduction to Aerospace <i>Pre: ENGE 1216, PHYS 2305; Co: ESM 2104 or ESM 2114</i>	3 [F, SII]	AOE 2024	Thin Walled Structures <i>Pre: ESM 2114 or (ESM 2104, ESM 2204), (MATH 2224 or MATH 2224H or MATH 2204 or MATH 2204H); Co: MATH 2214</i>	3 [F, S]
ESM 2114	Statics and Structures <i>Co: MATH 2204 or MATH 2204H or MATH 2406H</i>	3	AOE 2074 (ESM 2074)	Computational Methods <i>Pre: ENGE 1114 or ENGE 1216 or ENGE 1434 or ENGE 1414</i>	2[F,S]
MATH 2114	Intro to Linear Algebra <i>Pre: MATH 1225 (min grade of B) or MATH 1226</i>	3	ESM 2304	Dynamics <i>Pre: (2104 or 2114), (MATH 2224 or MATH 2224H or MATH 2204 or MATH 2204H); Co: MATH 2214</i>	3
MATH 2204	Multivariable Calculus <i>Pre: MATH 1226</i>	3	MATH 2214	Differential Equations <i>Pre: (1114 or 2114 or 2114H or 2405H), 1226</i>	3
	ROTC	Varies		Pathways 3 ROTC	3 Varies
Total Credit Hours		12 - 16	Total Credit Hours		14 - 18

Third Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
AOE 3014	Fluid Dynamics For AOE <i>Pre: (2104 or 2204), ESM 2304, MATH 2214</i>	3 [F]	AOE 3054	AOE Experimental Methods <i>Pre: 2024, 2054, 3014, 3034</i>	3 [S]
AOE 3034	Sys. Dynamics and Control <i>Pre: ESM 2304, (MATH 2214 or MATH 2214H)</i>	3 [F]	AOE 3114	Compressible Aerodynamics <i>Pre: 3014; Co: 3164</i>	3 [S]
AOE 3124	Aerospace Structures <i>Pre: 2024 or 3204</i>	3 [F,S]	AOE 3164	Thermo. and AE Propulsion <i>Pre: 3014; Co: 3114</i>	3 [S]
AOE 2054	Electronics for AOE ROTC	3[F] Varies		Pathways 2/7 ROTC	3 Varies
Total Credit Hours		12 - 18	Total Credit Hours		12 - 18

Fourth Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
AOE 3154	Astromechanics <i>Pre: ESM 2304</i>	3 [F]	MATH	Elective	3
PHYS 2306	Foundations of Physics <i>Pre: (MATH 1206 or MATH 1206H or MATH 1226), PHYS 2305</i>	4	AOE 3134 OR	Air Vehicle Dynamics OR <i>Pre: 3034</i>	3 [S]
MATH 4564	Operational Methods <i>Pre: (2214 or 2214H) or 2406H or CMDA 2006</i>	3	AOE 3144	Space Vehicle Dynamics <i>Pre: 3034, 3154</i>	3
AOE	Technical Elective ROTC	3 Varies	AOE	Track Technical Elective Pathways 6a ROTC	3 3 Varies
Total Credit Hours		13 - 19	Total Credit Hours		12 - 18

Fifth Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
AOE 4105	Experiments for AE Design I <i>Pre: 3054; Co: 4065 or 4165</i>	1 [F]	AOE 4106	Experiments for AE Design II <i>Pre: 4105; Co: 4066 or 4166</i>	1 [S]
AOE 4065 OR	Air Vehicle Design I OR <i>Pre: 2104, 3054, 3114, 3124, 3134, 3164; Co: 4105</i>	3 [F]	AOE 4066 OR	Air Vehicle Design II OR <i>Pre: 4065; Co: 4106</i>	3 [S]
AOE 4165	Space Vehicle Design I <i>Pre: 2104, 3054, 3114, 3124, 3144, 3154, 3164; Co: 4105</i>	3	AOE 4166	Space Vehicle Design II <i>Pre: 4165; Co: 4106</i>	3
AOE	Track Technical Elective	3	AOE	Track Technical Elective	3
AOE	Technical Elective	3	AOE	Technical Elective	3
ECON 2005	Principles of Economics <i>Pathways 3</i>	3		Pathway 2	3
	ROTC	Varies		ROTC	Varies
Total Credit Hours		13 - 15	Total Credit Hours		13 - 15