

Exhibit A:
Associate of Engineering Science Degree in Mechanical Engineering
 University of Colorado Colorado Springs

Courses that Fulfill General Education Requirements				34
Content Area	Credit Hours	Community College Course No.	Course Title or Category	
Written Communication	3	Any GT-CO1 OR Any GT-CO2	Requirements are specific to individual Articulation Agreements, but include: • English Composition I (GT-CO1) OR • English Composition II (GT-CO2) OR • Technical Writing I (GT-CO1)	
Calculus I & II	10	MAT 2410 (5) AND MAT 2420 (5)	Calculus I (GT-MA1) AND Calculus II (GT-MA1)	
Arts & Humanities	3	PHI 2018 OR Any GT-AH	One GT Pathways Arts & Humanities course (GT-AH1, GT-AH2, GT-AH3, GT-AH4)	
Social & Behavioral Sciences	3	ECO 2002 OR ECO 2001 OR Any GT-SS	One GT Pathways Social & Behavioral Sciences course (GT-SS1, GT-SS2, GT-SS3)	
Natural & Physical Sciences	15	CHE 1111 (5) AND PHY 2111 (5) AND PHY 2112 (5)	General College Chemistry I/Lab (GT-SC1) AND Calculus-based Physics I/Lab (GT-SC1) AND Calculus-based Physics II/Lab (GT-SC1)	
Additional Required Courses				30
Note: If these credits are <i>not</i> required for the <i>major</i> at a receiving institution, they will be applied to the bachelor's degree as <i>elective credit</i> towards <i>graduation</i> . Check with the receiving institution to determine in which way these courses will be applied. Additional credits earned in Calculus III will reduce the credits needed in the electives below.				
Content Area	Credit Hours	Community College Course No.	Course Title	
Calculus III ¹	4	MAT 2430 (4) OR MAT 2431 (5)	Calculus III (4) OR Calculus III with Engineering Applications (5)	
Differential Equations & Linear Algebra ²	4 ²	MAT 2562 (4) OR	Differential Equations with Linear Algebra ² (4) – Preferred OR	
		MAT 2561 (4) AND MAT 2540(3) OR MAT 2560 (3) AND MAT 2540 (3) OR	Differential Equations with Engineering Applications ² (4) AND Linear Algebra (3) OR Differential Equations ² (3) AND Linear Algebra (3) OR	
Engineering	6	EGG 2011 (3) EGG 2012 (3)	Engineering Mechanics I (Statics) Engineering Mechanics II (Dynamics)	
Engineering Projects	6	EGG 1020 (3) EGT 1110 (3)	Engineering Methodologies (3) Intro Design/Engineering Apps (3)	
Computer Science ³	4	CSC 1060 OR EGG 1060	Computer Science I OR Engineering Computing	
AES Elective	6 ⁴	Pick from the list of AES Electives below	Preferred: Thermodynamics, Accounting Principles, or Circuit Analysis I	
AES Electives				
Electives listed below have been articulated to the University of Colorado Colorado Springs, choose two of the following that have not been applied in previous categories.				
Thermodynamics	3	EGG 2020	Thermodynamics	
Mechanics of Solids	3	EGG 2030	Mechanics of Solids	
Circuit Analysis I	4	EGG 2041	Circuit Analysis I	
Accounting Principles I	4	ACC 1021	Accounting Principles I	
				Total = 64 credits

Notes:

¹**Calculus III.** MAT 2431 is preferred; However, additional credits over 64 may not transfer to all universities.

²**Differential Equations & Linear Algebra:** It is recommended for students to complete MAT 2562. If a student completes MAT 2560 OR MAT 2561, they must also complete MAT 2450 Linear Algebra along with MAT 2560 or MAT 2561. Credits for MAT 2450 will need to be completed in addition to the 64 credits. Additional credits over 64 may not transfer to all universities.

³**Computer Science:** Students may select either CSC 1060 or EGG 1060.

⁴**AES Electives:** up to 8 credits may transfer and total credits may exceed 64.

⁵**The Associate of Engineering Science Degree with a concentration in Mechanical Engineering requires a minimum of 64 credits.**

The table below identifies a possible plan of study with Pikes Peak State College courses listed followed by UCCS courses in (parenthesis)

Year One	√	FALL	<i>Hours</i>	√	SPRING	<i>Hours</i>
		EGG 1020 (MAE 1502)	3		MAT 2420 (MATH 1360 – 4cr)	5
		MAT 2410 (MATH 1350 – 4cr)	5		PHY 2111 (PES 1110 – 4cr)	5
		CHE 1111 (CHEM 1401/1402)	5		EGT 1110 (MAE 1503)	3
		ENG 1021 or ENG 1031 (ENGL 1310 or TCID 2090)	3		AH Elective	3
		TOTAL	16		TOTAL	16

Year Two	√	FALL	<i>Hours</i>	√	SPRING	<i>Hours</i>
		EGG 2011 - Statics (MAE 2103)	3		EGG 2012 - Dynamics (MAE 2104)	3
		MAT 2430 (MATH 2350)	4		MAT 2562 (MATH 3400 and 3130)	4
		PHY 2112 (PES 1120 – 4cr)	5		AES Elective - EGG 2020 - Thermodynamics (MAE 2301)	3
		AES – Elective	3-4		CSC 1060 (MAE 1090 – 3cr)	4
					SS Elective	3
		TOTAL	15-16		TOTAL	17