Associate of Engineering Degree in Mechanical Engineering

Community College Course Numbers Used Since May 2022

Courses that Fulfill General Education Requirements				37
Content Area	Credit Hours	Community College Course No.	Community College Course Title or Category	CSU Transfer Equivalent
Written Communication	6	**Any GT-CO1 AND Any GT-CO2**	English Composition I (GT-CO1) **OR** Technical Writing (GT-CO1) **AND** English Composition II (GT-CO2)	CO 150
Calculus I & II	10	MAT 2410 (5) **AND** MAT 2420 (5)	Calculus I (GT-MA1) **AND** Calculus II (GT-MA1)	MATH 160 MATH 161
Arts & Humanities	3	PHI 2018 **OR** **Any GT-AH**	One GT Pathways Arts & Humanities course (GT-AH1, GT-AH2, GT-AH3, GT-AH4)	AUCC 3B
Social & Behavioral Sciences	3	COM 2300 **OR** **Any GT-SS**	One GT Pathways Social & Behavioral Sciences course (GT-SS1, GT-SS2, GT-SS3)	AUCC 3C
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)	CHEM 111 & CHEM 112 PH 141 PH 142

Additional Required Courses				27

Note: If these credits are *not* required for the *major* at a receiving institution, they will be applied to the bachelor's degree as *elective credit* towards *graduation*. Check with the receiving institution to determine in which way these courses will be applied.

Content Area	Credit Hours	Community College Course No.	Community College Course Title	CSU Transfer Equivalent
Calculus III[1]	4[1]	MAT 2430 (4) **OR** MAT 2431 (5)	Calculus III[1] (4) **OR** Calculus III with Engineering Applications[1] (5)	MATH 261
Differential Equations & Linear Algebra[2]	4[2]	MAT 2561 (4) **AND** MAT 2540 (3) **OR** MAT 2560 (3) **AND** MAT 2540 (3) **OR** **MAT 2562 (4)**	Differential Equations with Engineering Applications[2] (4) **AND** Linear Algebra (3) **OR** Differential Equations[2] (3) **AND** Linear Algebra (3) **OR** Differential Equations with Linear Algebra[2] (4)	MATH 340
Engineering	9	EGG 2011 (3) EGG 2012 (3) EGG 1050 (1) **AND** EGG 1051 (2)	Engineering Mechanics I (Statics) Engineering Mechanics II (Dynamics) Engineering Data Analysis **AND** Experimental Design	CIVE 260 CIVE 261 MECH 231
Engineering Projects	3	EGG 1040 (3) **OR** EGT 1110 (3)	Engineering Projects (3) **OR** Intro Design/Engineering Apps (3)	MECH 202
Engineering Computing	4	EGG 1060 (4)	Engineering Computing	MECH 105
SolidWorks	3	CAD 2455 (3)	SolidWorks/Mechanical	MECH 201
Total[3]				**64**

NOTES:

[1]**Calculus III.** Calculus III w/ Engineering Applications (MAT 2431) is preferred; However, additional credits over 64 may not transfer to CSU.

[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 2540 Linear Algebra** along with MAT 2650 or MAT 2561. *Credits for MAT 2540 will need to be completed in addition to the 64 credits. Additional credits over 64 may not transfer to CSU.*

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

Associate of Engineering Degree in Mechanical Engineering
Community College Course Numbers Used Prior to April 2022

Courses that Fulfill General Education Requirements				37
Content Area	Credit Hours	Community College Course No.	Community College Course Title or Category	CSU Transfer Equivalent
Written Communication	6	**Any GT-CO1 AND Any GT-CO2**	English Composition I (GT-CO1) **OR** Technical Writing (GT-CO1) **AND** English Composition II (GT-CO2)	CO 150
Calculus I & II	10	MAT 201 (5) **AND** MAT 202 (5)	Calculus I (GT-MA1) **AND** Calculus II (GT-MA1)	MATH 160 MATH 161
Arts & Humanities	3	PHI 218 **OR** **Any GT-AH**	One GT Pathways Arts & Humanities course (GT-AH1, GT-AH2, GT-AH3, GT-AH4)	AUCC 3B
Social & Behavioral Sciences	3	COM 220 **OR** **Any GT-SS**	One GT Pathways Social & Behavioral Sciences course (GT-SS1, GT-SS2, GT-SS3)	AUCC 3C
Natural & Physical Sciences	15	CHE 111 (5) **AND** PHY 211 (5) **AND** PHY 212 (5)	General College Chemistry I/Lab (GT-SC1) **AND** Calculus-based Physics I/Lab (GT-SC1) **AND** Calculus-based Physics II/Lab (GT-SC1)	CHEM 111 & CHEM 112 PH 141 PH 142

Additional Required Courses				27

Note: If these credits are *not* required for the *major* at a receiving institution, they will be applied to the bachelor's degree as *elective credit* towards *graduation*. Check with the receiving institution to determine in which way these courses will be applied.

Content Area	Credit Hours	Community College Course No.	Community College Course Title	CSU Transfer Equivalent
Calculus III[1]	4[1]	MAT 203 (4) **OR** MAT 204 (5)	Calculus III[1] (4) **OR** Calculus III with Engineering Applications[1] (5)	MATH 261
Differential Equations & Linear Algebra[2]	4[2]	MAT 261 (4) **AND** MAT 255 (3) **OR** MAT 265 (3) **AND** MAT 255 (3) **OR** **MAT 266 (4)**	Differential Equations with Engineering Applications[2] (4) **AND** Linear Algebra (3) **OR** Differential Equations[2] (3) **AND** Linear Algebra (3) **OR** Differential Equations with Linear Algebra[2] (4)	MATH 340
Engineering	9	EGG 211 (3) EGG 212 (3) EGG 132 (1) **AND** EGG 151 (2)	Engineering Mechanics I (Statics) Engineering Mechanics II (Dynamics) Engineering Data Analysis **AND** Experimental Design	CIVE 260 CIVE 261 MECH 231
Engineering Projects	3	EGG 140 (3) **OR** EGT 140 (3)	Engineering Projects (3) **OR** Intro Design/Engineering Apps (3)	MECH 202
Engineering Computing	4	EGG 145 (4)	Engineering Computing	MECH 105
SolidWorks	3	CAD 255 (3)	SolidWorks/Mechanical	MECH 201
Total[3]				64

NOTES:

[1]**Calculus III.** Calculus III w/ Engineering Applications (MAT 204) is preferred; However, additional credits over 64 may not transfer to CSU.

[2]**Differential Equations & Linear Algebra:** It is **recommended** for students **to complete MAT 266. If a student completes MAT 265 OR MAT 261, they must also complete MAT 255 Linear Algebra** along with MAT 265 or MAT 261. Credits for MAT 255 will need to be completed in addition to the 64 credits. Additional credits over 64 may not transfer to CSU.

[3]The Associate of Engineering Science Degree with a concentration in Mechanical Engineering requires a minimum of 64 credits.