Associate of Engineering Science Degree in Civil Engineering
University of Colorado Boulder

Courses that Fulfill General Education Requirements			**34**
Content Area	Credit Hours	Community College Course No.	Course Title or Category
Written Communication	3	ENG 1021 **OR** ENG 1022	Requirements are specific to individual Articulation Agreements, but include: • English Composition I (GT-CO1) **OR** • English Composition II (GT-CO2)
Calculus I & II	10	MAT 2410 (5) **AND** MAT 2420 (5)	Calculus I (GT-MA1) **AND** Calculus II (GT-MA1)
Arts & Humanities	3	**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			**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. **Additional credits earned in Calculus III will reduce the credits needed in 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	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)
Engineering	9	EGG 2011 (3) EGG 2012 (3) EGG 2030 (3)	Engineering Mechanics I (Statics) Engineering Mechanics II (Dynamics) Mechanics of Solids
Engineering Projects	3	EGG 1040 (3) **OR** EGT 1110 (3) **OR** EGG 1020 (3) **OR** EGG 1051 (2) **AND** EGG 1060 (1)	Engineering Projects (3) **OR** Intro Design/Engineering Apps (3) **OR** Engineering Methodologies (3) **OR** Experimental Design (2) **AND** Robotics Design (1)
Computer Science[3]	4	CSC 1060 **OR** **EGG 1060** **OR**	Computer Science I **OR** Engineering Computing *(preferred)*
Civil 3D / CAD / Revit[4]	3	**CAD 2332 (3)** CAD 1101+1102 (6) CAD 2220 (3)	Civil 3D *(preferred)* **OR** AutoCAD **OR** Revit
Electives Electives listed below have been articulated to the University of Colorado Boulder			**3**
Geology	4	GEY 1111	Physical Geology *(free elective credit at CU Boulder)*
Engineering Surveying	3	EGG 2006	Geomatics
Thermodynamics	3	EGG 2020	Thermodynamics
Total			**64**

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.**
[3]**Computer Science**: Students may select either CSC 1060 (C++) or EGG 1060. EGG 1060 is preferred. Once at CU Boulder, depending on the computer language you learned, you may need additional self-study to be best equipped for subsequent coursework.
[4]CAD 2332 is preferred for, however CAD 1101+1102 OR CAD 2220 will be accepted. Students who do not complete CAD 2332 may need additional self-study to be best equipped for subsequent coursework. Additional credits over 64 may not transfer to all universities.
[6]The Associate of Engineering Science Degree with a concentration in Civil Engineering requires a minimum of 64 credits.