Associate of Engineering Science Degree in Electrical and Computer Engineering
University of Colorado Boulder

Courses that Fulfill General Education Requirements			**32**
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	**Any GT-SS**	One GT Pathways Social & Behavioral Sciences course (GT-SS1, GT-SS2, GT-SS3)
Natural & Physical Sciences	15	PHY 2111 (5) **AND** PHY 2112 (5) **AND** CHE 1111 (5) **OR** PHY 2113 (3)	Calculus-based Physics I/Lab (GT-SC1) **AND** Calculus-based Physics II/Lab (GT-SC1) **AND** General College Chemistry I/Lab (GT-SC1) Physics III: Calculus-Based Modern Physics
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[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)
Engineering	8	EGG 1065 (4) EGG 2041 (4)	Logic Design (Digital Logic) Circuit Analysis 1
Engineering Projects	3	EGG 1040 (3) **OR** EGT 1110 (3) **OR** EGG 1020 (3) **OR** EGG 1051 (2) **AND** EGG 1030 (1)	Engineering Projects (3) **OR** Intro Design/Engineering Apps (3) **OR** Engineering Methodologies (3) **OR** Experimental Design (2) **AND** Robotics Design (1)
Computer Science	8	CSC 1060 (4) CSC 1061 (4)	Computer Science I Computer Science II
Electives Choose 1 from below:			**4**
Discrete Structures	4	CSC 2065	Discrete Structures (Discrete Mathematics substitution for ECEE)
Computer Architecture and Assembly Language	4	CSC 2025	Computer Systems (Programming Digital Systems substitution for ECEE)
Total			**63**

Notes:
[1]***Calculus III.*** *MAT 2431 is preferred; However, additional credits over 65 may not transfer.*
[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 2560 or MAT 2561.Credits for MAT 2540 will need to be completed in addition to the 64 credits. Additional credits over 65 may not transfer to all universities.*
[3]*The Associate of Engineering Science Degree with a concentration in Electrical and Computer Engineering requires a minimum of 65 credits.*