#### TRANSFER ARTICULATION AGREEMENT

This TRANSFER ARTICULATION AGREEMENT ("Agreement") is made between University of Colorado Boulder ("CU Boulder") and the State of Colorado, Department of Higher Education, State Board for Community Colleges and Occupational Education, for the use and benefit of the Colorado Community College System, a state system of thirteen (13) community colleges created under Colorado law with offices at 9101 E. Lowry Blvd. Denver, CO 80230 ("CCCS"). Institution and CCCS may each be referred to herein as "Party", and collectively as "Parties".

#### **RECITALS**

A. The College of Engineering and Applied Science at University of Colorado Boulder offers an ABET-accredited Bachelor of Science ("BS") degrees in various engineering disciplines.

B. Each of the thirteen community colleges that constitute the CCCS ("CCCS School") is a regionally-accredited post-secondary institution of higher learning that offers accredited programs that educate and qualify students to receive associate of arts ("AA") and associate of science ("AS") degrees, as well as other post-secondary degrees and certificates.

C. The Parties wish to collaborate on the terms set forth in this Agreement to promote and facilitate a program ("General Engineering AES Pathway through the CU Boulder Engineering Transfer Pathways Program") for the transfer of any student from a CCCS School ("CCCS Student") to Institution so that such student may be able to complete the courses needed to earn a bachelor's degree from Institution. In furtherance of this purpose, this Agreement, among other things, identifies the courses a CCCS Student must complete and any other requirements that must be satisfied in earning a CCCS Associate of Engineering Science (AES) degree in order to qualify for the Institution Transfer Program assurance specified in Section 1.1 below.

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth in this Agreement, the Parties agree as follows:

# 1. Elements of the CU Boulder General AES Pathway.

- 1.1 A CCCS Student who (i) earns an AES degree in the General Engineering pathway at any CCCS School, (ii) completes all of the course requirements for the AES degree in General Engineering with a grade of C or higher in each of those courses, as verified by an official transcript from the applicable CCCS School(s), (iii) successfully completes all admissions requirements, as listed on the University of Colorado Boulder, College of Engineering and Applied Science undergraduate university catalog will be admitted to the engineering program of their choice, as listed on their application for admission.
  - a. Any CCCS Student who is admitted to CU Boulder Engineering through this General Engineering pathway ("CCCS Transfer Student") will be subject to all of the remaining graduation requirements, which may range from 2-3 years for degree

- completion once transferred, depending on the degree program of choice.
- b. Treatment of the AES degree will be evaluated for admission purposes using the course equivalencies established between CCCS and University of Colorado Boulder. The explicit requirements for the AES from the CCCS are outlined in Appendix A.
- 1.1 Any CCCS Student who is admitted to Institution through the Institution Transfer Program ("CCCS Transfer Student") will be subject to all of the remaining graduation requirements at CU Boulder.
- 1.2 Completion of the CCCS course requirements described in Exhibit A hereto that qualify for transfer under the General Engineering AES Pathway does not guarantee admission to CU Boulder Engineering. CCCS Students desiring to transfer to CU Boulder under this program must meet all application and admission requirements for the bachelor's degree program for which the application is submitted, including, without limitation, submitting all required documentation by stated deadlines, including all official transcripts from institutions previously attended.
- 1.3 Only courses with grades of C or higher are eligible for transfer.
- 1.4 A CCCS Student who wishes to use academic credits awarded by examination, such as Advanced Placement ("AP") or International Baccalaureate ("IB"), to fulfill specific course requirements in the Transfer Guide attached hereto as Exhibit A is responsible for consulting with CU Boulder to determine whether such credits that have been awarded by examination satisfy the standards for a specific course equivalent. CU Boulder reserves the right to determine whether any such academic credits awarded by examination will satisfy a specific course equivalent.
- 1.5 CU assures acceptance of all qualifying academic credits earned by a CCCS Student no more than ten (10) years before an application is made to transfer to CU Boulder. Any academic credits earned more than ten (10) years before such transfer application is made will be evaluated on a course-by-course basis and may or may not be accepted as eligible transfer credits within CU Boulder's sole discretion.
- 1.6 This agreement does not apply to the University of Colorado Boulder Partnership programs at Western Colorado University in Gunnison, or Colorado Mesa University in Grand Junction, Colorado.
- 2. Transfers Outside the Institution Transfer Program.
- 2.1 Any CCCS Student who does not qualify for transfer to CU Boulder under the Transfer Program set forth in this Agreement may

nevertheless apply to transfer to Institution and request that courses completed at a CCCS School be approved for credit in satisfaction of the course requirements for the Institution bachelor's degree program.

## 3. Rights and Obligations of Institution.

- 3.1 CU Boulder will annually review and update each Transfer Guide and make them available on the Institution website.
- 3.2 CU Boulder shall have the sole right and authority to determine those CCCS courses that qualify for transfer under the Institution Transfer Program and whether a CCCS Student meets all of the requirements for admission to Institution.
- 3.3 Both Parties acknowledge that it is typically in the best interest of the student to complete their associate degree at his/her community college; both Parties will work together to support a student's completion of the associate degree at a CCCS college. Should a CCCS student transfer to Institution prior to completing their associate's degree, Institution will encourage students to send transcripts back to CCCS for consideration of awarding of the Associates degree through a reverse transfer.

#### 4. Rights and Obligations of CCCS.

- 4.1 CCCS shall provide to CU Boulder information regarding courses available through any CCCS School.
- 4.2 CCCS and the applicable CCCS School shall have the sole right and authority to determine whether a CCCS student meets all the requirements that must be satisfied in order to receive a CCCS degree, as applicable.

# 5. Mutual Rights and Obligations of the Parties.

- 5.1 Each Party reserves the right and authority to amend the conditions or requirements for admission, acceptance, retention and eligibility to receive the academic degree in their respective programs that are the subject of this Agreement, at any time as may be necessary in the interests of the institution or the program, and in such event shall promptly give notice thereof to the other Party.
- 5.2 The Parties will collaborate with each other to promote the Institution Transfer Program by providing opportunities to communicate information about the Institution Transfer Program through the Parties' respective official websites. The Parties agree that any written materials, including online information, promoting the Institution Transfer Program shall be not be published or otherwise used without the prior written approval of both Parties.

5.3 The Parties shall undertake an annual evaluation of the collaboration supported by this Agreement and use the findings to improve the process for CCCS Student participation in the Institution Transfer Program.

# 6. FERPA Compliance and Confidentiality of Student Education Records and Personally Identifiable Information ("PII").

- 6.1 The Parties shall comply with the Family Education Rights and Privacy Act (FERPA) with regard to collection and use of Student Education Records. Authorized employees of the Parties will have access to Student Education Records as defined under FERPA for eligible transfer students.
- 6.2 Institution shall use reasonable efforts to implement appropriate reasonable physical, administrative, and technical safeguards to prevent unauthorized use or disclosure of Student Education Records. Such measures will be no less protective than those used to secure Institution's own data of a similar type and in no event less than reasonable in view of the type and nature of the data involved.

#### 7.0 Gramm-Leach-Bliley Act Compliance.

7.1 The Parties shall comply with the Gramm-Leach-Bliley Act (GBLA) in its collection and use of student financial data. The Parties will use student financial data only for the purpose of fulfilling their respective duties under this Agreement for the student's benefit, and will not share such data with or disclose it to any third party except as provided for in this Agreement, required by law, or authorized in writing by the student.

# 8.0 Data Sharing between the Parties.

- 8.1 Information will be shared, in compliance with all applicable laws and regulations, as needed to allow transferring students to participate in the articulation/transfer program and to track student interest, persistence, and success.
- 8.2. Institution agrees to provide CCCS with certain de-identified data related to students participating in the Institution Transfer Program as more specifically outlined in Exhibit B on an annual basis.
- **9. Legal Authority.** Each Party warrants that it possesses the legal authority to enter into this Agreement, and that it has taken all actions required by its procedures, by-laws, and/or applicable law to exercise that authority, and to lawfully authorize its undersigned signatory to

execute this Agreement.

- **10. Accreditation.** Each Party warrants that as of the effective date of this Agreement, and during this Agreement's term, it is and will be fully accredited institutionally by a US Department of Education recognized regional accrediting agency, which in the case of the CCCS School is the Higher Learning Commission, and in the case of University of Colorado Boulder's College of Engineering and Applied Science is the Accreditation Board for Engineering and Technology (ABET).
- 11. Independent Contractor Relationship. The Parties shall perform their duties hereunder as independent contractors and not as employees, agents, or servants of each other. No agent or employee of either Party shall be or shall be deemed to be an agent or employee of the other. The Parties shall pay when due all required employment taxes and income tax and local head tax on any of its employees. The Parties acknowledge that they and their employees are not entitled to unemployment insurance benefits unless they or a third party provides such coverage and that the other Party does not pay for or otherwise provide such coverage. Neither Party shall have authorization, express or implied, to bind the other Party to any additional agreements, liabilities, or understandings, except as expressly set forth in this Agreement. Each Party shall be solely responsible for the acts or omissions of its employees and agents. Furthermore, this Agreement shall not be construed to create any partnership or joint venture between the Parties.

#### 12. Insurance.

- 12.1 Notwithstanding any other provision of this Agreement to the contrary, no term or condition of this Agreement shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protection, or other provisions of the Colorado Governmental Immunity Act, §§ 24-10-101, et seq., C.R.S., as it now exists or is hereafter amended ("CGIA"). The Parties understand and agree that liability for claims for injuries to persons or property arising out of the negligence of CCCS, its departments, institutions, agencies, boards, officials and employees is controlled and limited by the provisions of the CGIA, as it now exists or is hereafter amended, and the risk management statutes, §§ 24-30-1501, et seq., C.R.S., as they now exist or are hereafter amended.
- 12.2 CCCS, as an entity of the State of Colorado, is self-insured for \$424,000 per person and \$1,195,000 per occurrence or such higher amounts as may be provided by law as more fully set forth in the Colorado Governmental Immunity Act, C.R.S. §§ 24-10-101, et seq. and State of Colorado Risk Management laws, C.R.S. §§ 24-30-1501, et. seq.
- 12.3 Institution shall maintain during the term of this Agreement (i) commercial general liability insurance coverage in the minimum

amount of \$1,000,000 per occurrence and \$3,000,000 in the aggregate, and (ii) worker's compensation insurance and unemployment compensation insurance in the amounts required by law.

13. Licenses, Permits, and Responsibilities. Each Party warrants that, at the time of entering into this Agreement, each Party has currently in effect all necessary licenses, certifications, approvals, insurance, permits, and other requirements necessary to properly perform its obligations under this Agreement. Each Party also warrants that it will maintain all necessary licenses, certifications, approvals, insurance, permits, and other requirements necessary to properly perform its obligations under this Agreement. Additionally, all employees of either Party performing services under this Agreement shall hold the required licenses or certifications, if any, to perform their respective duties and responsibilities. Any revocation, withdrawal or non-renewal of necessary licenses, certifications, approvals, insurance, permits, and other requirements necessary to properly perform under this Agreement, shall be grounds for termination of this Agreement by any Party.

#### 14. Compliance with Applicable Laws, Rules, and Regulations.

- 14.1 Each Party shall comply with any and all federal and state laws, rules and regulations, and county and municipal ordinances, rules and regulations applicable to each Party's performance of its obligations under this Agreement.
- 14.2 The Parties shall comply with all applicable federal and state anti-discrimination laws that prohibit discrimination on the basis of race, color, sex, age, religion, national origin, disability, or any other prohibited basis. In the event either Party, or any of its employees, agents or students is alleged to have violated any of such anti-discrimination laws while performing obligations under this Agreement, the Parties agree to cooperate in conducting a subsequent investigation, including sharing investigative reports.

#### 15. Termination.

15.1 This Agreement shall continue until terminated by either Party (i) without cause by giving at least one hundred twenty (120) days prior written notice to the other Party; or (ii) with cause based upon a breach of this Agreement (other than a breach of Section 10 based upon the termination of a Party's accreditation) by giving written notice of termination to the breaching Party specifying the reason(s) therefor, and giving the breaching Party an opportunity to cure the breach within thirty (30) days of the date of such notice. Unless otherwise agreed to by the Parties in writing, this Agreement shall be deemed terminated at the expiration of such thirty (30)-day period if the breach is not cured within that time.

15.2 Upon any termination of this Agreement, Institution shall have no obligation to allow any additional CCCS Student to participate in

the Institution Transfer Program to receive the assurance provided in Section 1.1 of this Agreement.

15.3 In the event either Party's accreditation, as required by Section 10 hereof, is terminated, the Party whose accreditation is terminated

shall promptly give notice thereof to the other Party, and this Agreement shall be deemed terminated as of the date such accreditation is

terminated.

16. Representatives and Notices.

16.1 For the purpose of providing a contact person for the general administration of this Agreement, the individuals identified below are

hereby designated representatives of the respective Parties. Either Party may from time to time designate by notice in writing a new or

substitute representative:

For CU Boulder: Dean, College of Engineering and Applied Science

For CCCS: Vice Chancellor for Academic and Student Affairs

16.2 All notices permitted or required to be given by the Parties hereunder shall be personally delivered, given by certified U.S. mail,

postage prepaid, or delivered overnight by a nationally recognized courier service, delivery fee prepaid, to the individuals at the addresses

set forth below. Either Party may from time to time designate by notice in writing substitute addresses or persons to whom such notices

shall be sent.

For CU Boulder:

College of Engineering and Applied Science

1111 Engineering Drive

Boulder, CO 80309

Attention: Dean, College of Engineering and Applied Science

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For CCCS:

Colorado Community College System

9101 E. Lowry Blvd.

Denver, CO 80230

Attn.: Vice Chancellor for Academic and Student Affairs

- **17. Assignment and Successors.** The Parties agree not to assign rights or delegate duties under this Agreement or subcontract any part of the performance required under this Agreement without the express, written consent of the other, which shall not be unreasonably withheld. Except as herein otherwise provided, this Agreement shall inure to the benefit of and be binding upon the Parties hereto and their respective permitted successors and assigns.
- **18. Entire Understanding.** This Agreement is intended as the complete integration of all understandings between the Parties with respect to the subject matter hereof. No prior or contemporaneous addition, deletion, or other amendment hereto shall have any force or affect whatsoever, unless embodied herein in writing. No subsequent novation, renewal, addition, deletion, or other amendment hereto shall have any force or effect unless embodied in a writing executed by the Parties and approved in accordance with applicable law.
- **21. Modification and Amendment**. No modification of this Agreement shall be effective unless agreed to in writing by both Parties in an amendment to this Agreement that is properly executed by the Parties and approved in accordance with applicable law.
- **22. No State Funds.** This Agreement does not involve the expenditure of State funds. Any obligation under this Agreement that would require the expenditure of State funds requires the approval of the State Controller and an amendment to this Agreement.
- **23. Survival of Certain Contract Terms.** Notwithstanding anything herein to the contrary, the Parties understand and agree that all terms and conditions of this Agreement and any exhibit hereto which may require continued performance, compliance, or effect beyond the termination date of this Agreement shall survive such termination date and shall be enforceable as provided herein in the event of such failure to perform or comply by either Party.
- **24. Severability.** If any of the provisions of this Agreement shall be held invalid or unenforceable, such invalidity or unenforceability shall not invalidate or render unenforceable the entire Agreement, but rather the entire Agreement shall be construed as if not containing the particular invalid or unenforceable provision or provisions, and the rights and obligations of the Parties shall be construed and enforced

accordingly, to effectuate the essential intent and purposes of this Agreement.

- **25. Waiver**. Neither Party may waive or release any of its rights or interests in this Agreement except in writing. The failure of either Party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition. No waiver by either Party of any condition or term in any one or more instances shall be construed as a continuing waiver of such condition or term or of another condition or term.
- **26. Applicable Law and Venue for Dispute Resolution.** This Agreement shall be governed and construed exclusively in accordance with the laws of the state of Colorado, excluding its choice of law rules, and all claims relating to or arising out of this Agreement or the breach thereof, whether sounding in contract, tort or otherwise, shall likewise be governed exclusively by the laws of the state of Colorado, excluding its choice of law rules. Any controversy, claim, or dispute arising out of or related to this Agreement, or the breach thereof, shall be adjudicated in the courts of the county of Denver, Colorado, to which the parties consent to personal jurisdiction.
- **27. Consortium Agreement Disclosures.** CCCS shall comply with the provisions of 34 C.F.R. § 668.5(e) and 34 C.F.R. § 668.43(a)(12) by providing each CCCS Transfer Student concurrently enrolled in a CCCS School and Institution under the Institution Transfer Program and each prospective student to the Institution Transfer Program a description of the written arrangements related to the Institution Transfer Program, including, but not limited to, the following information: (i) the portion of the educational program that the institution that grants the degree is not providing; (ii) the name and location of the institutions or organizations that are providing the portion of the educational program that the institution that grants the degree is not providing; (iii) the method of delivery of the portion of the educational program that the institution that grants the degree is not providing; and (iv) estimated additional costs CCCS Transfer Students may incur as the result of enrolling in an educational program that is provided, in part, under this Agreement.
- **28. Force Majeure.** Neither Party shall be liable for failure to perform as required by this Agreement to the extent such failure to perform is due to circumstances reasonably beyond such Party's control, including, without limitation, failure of any legal, governmental, or accrediting agency approval required for full performance, any order, rule or regulation of any court or government agency, labor disturbances or labor disputes, wars, insurrections, terrorism or civil disorders, acts of God, or any other cause beyond the reasonable control of the Party whose performance is affected; provided, however, that the Party affected by such a condition shall promptly give notice to the other Party stating the nature of the condition, its anticipated duration, and any action being taken to avoid or minimize its effect. The suspension of performance shall be of no greater scope and no longer duration than is reasonably required, and the nonperforming Party shall use its commercially reasonable efforts to remedy its inability to perform; provided further, however, that in

the event the suspension of performance continues for more than thirty (30) days after the date of the occurrence, and such failure to perform would constitute a material breach of this Agreement in the absence of such force majeure event, the non-affected Party may terminate this Agreement immediately by written notice to the affected Party.

- **29. Non-Exclusive Agreement.** This Agreement is non-exclusive, and either Party may contract with third parties to provide other similar programs.
- **30. Headings.** The underlined section headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement on the day and year first written above.

State of Colorado, Department of Higher Education, State Board for Community Colleges and Occupational Education, for the use and benefit of the Colorado Community College System University of Colorado Boulder College of Engineering and Applied Science

By: Diane Duffy
D4AF560EC1164C2

A/12/2024

Date:

By: \_\_\_\_84E9CCE726C24E6...
4/12/2024
Date:

keith Molenaar

Diane Duffy
Executive Vice Chancellor
Colorado Community College System

Keith Molenaar

Dean, College of Engineering and Applied Science
University of Colorado Boulder

#### **EXHIBIT B**

The following is a list of de-identified data to be produced by Institution to CCCS on an annual basis for purposes of tracking student success in the Institution Transfer Program based on demographics:

- Continued enrollment vs. no longer enrolled
- Cumulative GPA
- Attempted credits
- Cumulative credits
- Earned credential
- Disaggregated by race/ethnicity and gender
- Disaggregated by program
- Comparison success data for non-transfer students

## Exhibit A: Associate of Engineering Science Degree in General 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 <u>OR</u> 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) <u>AND</u> 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 <u>OR</u> ECO 2001 <u>OR</u> Any GT-SS	One GT Pathways Social & Behavioral Sciences course (GT-SS1, GT-SS2, GT-SS3)
Natural & Physical Sciences	15	PHY 2111 (5) <u>AND</u> PHY 2112 (5) <u>AND</u> CHE 1111 (5)	Calculus-based Physics I/Lab (GT-SC1) <u>AND</u> Calculus-based Physics II/Lab (GT-SC1) <u>AND</u> General College Chemistry I/Lab (GT-SC1)
Additional Required	Course	S	15
credit towards graduation	n. Check	with the receiving instit	receiving institution, they will be applied to the bachelor's degree as <i>elective</i> rution to determine in which way these courses will be applied.  he credits needed in electives below.
Content Area	Credit Hours	Community College Course No.	Course Title
Calculus III <sup>1</sup>	4	MAT 2430 (4) <u>OR</u> MAT 2431 (5)	Calculus III (4) <u>OR</u> Calculus III with Engineering Applications (5)
- · · · · · · · · · · · · · · · · · · ·		MAT 2561 (4) <u>AND</u> MAT 2540 (3) <u>OR</u>	Differential Equations with Engineering Applications <sup>2</sup> (4) <u>AND</u> Linear Algebra (3) <u>OR</u>
Differential Equations & Linear Algebra <sup>2</sup>	42	MAT 2560 (3) <u>AND</u> MAT 2540 (3) <u>OR</u>	Differential Equations <sup>2</sup> (3) <u>AND</u> Linear Algebra (3) <u>OR</u>
		MAT 2562 (4)	Differential Equations with Linear Algebra <sup>2</sup> (4)
Engineering Projects	3	EGG 1040 (3) <u>OR</u> EGT 1110 (3) <u>OR</u> EGG 1020 (3) <u>OR</u>	Engineering Projects (3) <u>OR</u> Intro Design/Engineering Apps (3) <u>OR</u> Engineering Methodologies (3) <u>OR</u>
<i>5 5</i> ,		EGG 1051 (2) <u>AND</u> EGG 1030 (1)	Experimental Design (2) <u>AND</u> Robotics Design (1)
Computer Science	4	CSC 1060 (4) <u>OR</u> <u>EGG 1060</u>	Computer Science I <u>OR</u> Engineering Computing ( <i>preferred</i> )
Electives Please see page 2 for re	ecommen	dations by major for pro	ograms that do not have an existing AES pathway
			page 2 for major-specific electives
Visit	https://wv	vw.colorado.edu/engine I	eering/CCCSTransfer for suggested course options by major
	1		
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# Total

60

#### **Aerospace Engineering:**

<sup>&</sup>lt;sup>1</sup>Calculus III. MAT 2431 is preferred; However, additional credits over 60 may not transfer.

<sup>2</sup>Differential Equations & Linear Algebra: It is recommended for students to complete MAT 2562. If a student completes MAT 2560 <u>OR MAT 2561</u>, 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 60 credits. Additional credits over

<sup>\*</sup>If you plan to transfer to CU Boulder, please prioritize the following electives, based on your intended engineering major while meeting the minimum degree credit requirements:

Electives			
Credit Hours	Community College Course No.	Course Title	
1	EGG 1000	Intro to Engineering	
4	CSC 1061 (4)	Computer Science 2	
6	**EGG 2011 (3) <b>AND</b> EGG 2030	Engineering Mechanics I (Statics) Solid Mechanics	
3	EGG 2020 (3)	Thermodynamics	

#### **Applied Mathematics:**

Electiv	Electives		
Credit Hours	Community College Course No.	Course Title	
1	EGG 1000	Intro to Engineering	
3	CAD 2455	SolidWorks 3D	
3	EGG 2011	Engineering Mechanics I (Statics)	
3	EGG 2012	Engineering Mechanics II (Dynamics)	
3	EGG 2020	Thermodynamics	
3	EGG 2030	Solid Mechanics	
3	CAD 1101	Computer Aided Drafting	

<sup>\*</sup> Electives are different for select concentrations in this major. Confirm with a CU Boulder Pre-Transfer Advisor for specific details.

# **Biomedical Engineering:**

Electives		
Credit Hours	Community College Course No.	Course Title
1	EGG 1000	Intro to Engineering
3	CAD 2455	SolidWorks 3D
3	EGG 2011	Engineering Mechanics I (Statics)
3	EGG 2030	Solid Mechanics
10	BIO 1111+1112	General Biology 1+2

<sup>\*</sup> BIO 1111+1112 = CHEN 2810 – Biology for Engineers at CU Boulder

<sup>\*</sup> CSC 1601 will count as a professional area elective (technical elective) in the ASEN degree
\*\* EGG2030+EGG 2011 combined count as ASEN 2701 - Introduction to Statics, Structures, and Materials

# **Chemical/Chemical and Biological Engineering:**

Electives		
Credit Hours	Community College Course No.	Course Title
1	EGG 1000	Intro to Engineering
5	CHE 1112	General College Chemistry II/Lab
10	BIO 1111+1112	General Biology 1+2
5	CHE 2111	Organic Chemistry 1
5	CHE 2112	Organic Chemistry 2

<sup>\*</sup>BIO 1111+1112 = CHEN 2810 – Biology for Engineers at CU Boulder

# **Creative Technology and Design:**

Electives  NOTE: Elective courses may only count for free electives in this major. Please consult the CTD electives website here:		
Credit Hours	Community College Course No.	Course Title
1	EGG 1000	Intro to Engineering
4	CSCI 1061	Computer Science 2
5	BIO 1111	General Biology 1
4	MAT 2520	Discrete Mathematics
3	CAD 1101	Computer Aided Drafting

# **Environmental Engineering:**

Electives		
Credit Hours	Community College Course No.	Course Title
1	EGG 1000	Intro to Engineering
5	CHE 1112	General College Chemistry II/Lab
3	EGG 2011	Engineering Mechanics I (Statics)
3	EGG 2020	Thermodynamics
3	EGG 2030	Solid Mechanics

<sup>\*</sup> Electives are different for select concentrations in this major. Confirm with a CU Boulder Pre-Transfer Advisor for specific details.