RRCC to CU-Boulder Transfer Advising Guide for
Aerospace Engineering (B.S.)

College of Engineering and Applied Science
[Aerospace Engineering Sciences Department Website](#)

Program Overview:

CU-Boulder's Department of Aerospace Engineering Sciences is nationally known for teaching, research and hands-on experiments and design projects alongside expert faculty. CU aerospace alumni are working at top companies and research labs, including the Jet Propulsion Laboratory, Johnson Space Center, Boeing, and Lockheed Martin. Our graduates tackle challenges in aerospace technology and science, focusing on Aerospace Engineering Systems, Astrodynamics & Satellite Navigation Systems, Bioastronautics and Remote Sensing, Earth & Space Sciences.

Admission Requirements:

[Please see this website for more information regarding CU Engineering admission criteria](#)

RRCC Course Summary: (the following courses will apply directly to the degree)
***BOLD** denotes admission requirement courses *(only ONE science course needed for admission)*
**denotes recommended requirement before transferring*

Mathematics:

MAT 201*	**Calculus 1**	**(5 credits)**
MAT 202*	**Calculus 2**	**(5 credits)**
MAT 204	Calculus 3 with Engineering Applications	(5 credits)
MAT 261	Differential Equations	(4 credits)
MAT 255	Linear Algebra	(3 credits)

Science:

PHY 211*	**Calc-based Physics 1**	**(5 credits)**
PHY 212	Calc-based Physics 2	(5 credits)
CHE 111	General Chemistry 1	(5 credits)

^CHE 111 will also count for admission requirement in place of PHY 211

Engineering/Computer Science:

CSC 160**	**Computer Science 1**	**(4 credits)**
EGT 140	IDEA (engineering projects)	(3 credits)

Humanities and Social Sciences (H/SS):

- Up to nine (9) credit hours at the lower division (100-200) level
  - Six (6) credit hours at the upper-division level – *typically taken at CU Boulder*
- Please consult our [CCCS humanities and social science list](#) when selecting these classes

Suggested Five-Year Course Plan for Aerospace Engineering

This is a suggested guide of coursework only and is subject to change.   Always consult with your academic advisor for graduation planning purposes.

*denotes courses that do not apply directly to degree, other than as free electives

Red Rocks Community College (first two years)

Fall Semester 1

Course	Course Title	Credits
MAT 121	College Algebra*	4
ENG 121	English Composition*	3
	Free Elective*	3
	Total Credits	**12**

Spring Semester 1

Course	Course Title	Credits
MAT 122	Trigonometry*	3
CHE 101	Intro to Chemistry (with Lab)*	5
ENG 122	English Composition 2 (H/SS)	3
	Humanities/Social Science	3
	Total Credits	**14**

Fall Semester 2

Course	Course Title	Credits
MAT 201	Calculus 1	5
CHE 111	College Chemistry (with lab)	5
CSC 160	Computer Science 1	4
	Total Credits	**14**

Spring Semester 2

Course	Course Title	Credits
MAT 202	Calculus 2	5
PHY 211	Physics 1	5
	Humanities/Social Science	3
EGT 140	IDEA (engineering projects)	3
	Total Credits	**13**

CU-Boulder (last three years)

Fall Semester 3

Course	Course Title	Credits
APPM 2350	Calculus 3	4
ASEN 2001	Statics, Structures and Matls.	4
ASEN 2002	Thermo and Aerodynamics	4
ASEN 2012	Exp. & Comp. Methods	2
	Total Credits	**14**

Spring Semester 3

Course	Course Title	Credits
APPM 2360	Differential Eq./Lin. Algebra	4
ASEN 1022	Materials Science for Aero.	4
ASEN 2003	Intro to Dynamics and Syst.	5
ASEN 2004	Vehicle Design and Perform.	5
	Total Credits	**18**

CU-Boulder (last three years)...continued

Fall Semester 4

Course	Course Title	Credits
ASEN 3111	Aerodynamics	4
ASEN 3112	Structures	4
ASEN 3113	Themo and Heat Transfer	4
PHYS 1120	Physics 2	4
	Total Credits	**15**

Spring Semester 4

Course	Course Title	Credits
ASEN 3128	Aircraft Dynamics	4
ASEN 3200	Orbit Mech. /Attitude Dyn.	4
ASEN 3300	Electronics and Comms.	4
	Professional Area Elective	3
	Total Credits	**15**

Fall Semester 5

Course	Course Title	Credits
ASEN 4013	Found. of Propulsion	3
ASEN 4018	Senior Projects	4
	Professional Area Elec. (x2)	6
	Engineering Writing Course	3
	Total Credits	**17**

Spring Semester 5

Course	Course Title	Credits
ASEN 4028	Senior Projects 2	4
	Professional Area Elec. (x2)	6
	UD Humanities/Social Science	3
	UD Humanities/Social Science	3
	Total Credits	**15**