ACC to CU-Boulder Transfer Advising Guide for
Applied Mathematics (B.S.)

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

Program Overview:

The principal focus of a major in Applied Mathematics is to use of computational methods and implementation of algorithms on computers, alongside strengthening mathematical, computational, and communication skills. Required technical electives may be chosen from mathematics, statistics, engineering, physics, chemistry, computer science, biology, astrophysics, geology, economics, finance and accounting.

Admission Requirements:

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

ACC Course Summary: (the following courses will apply directly to the degree)

*__BOLD__ denotes admission requirement courses *(only ONE science course needed for admission)*

Mathematics:

MAT 2410*	**Calculus 1**	**(5 credits)**
MAT 2420*	**Calculus 2**	**(5 credits)**
MAT 2431	Calculus 3 with Engineering Applications	(5 credits)
MAT 2562	Differential Equations/Linear Algebra	(4 credits)

Science:

PHY 2111*	**Calc-based Physics 1**	**(5 credits)**
PHY 2112	Calc-based Physics 2	(5 credits)
CHE 1111	General Chemistry 1	(5 credits)

^CHE 1111 will also count for admission requirement in place of PHY 211

Engineering/Computer Science:

EGG 1060 *(preferred)*	Introduction to Engineering Computing	(4 credits)
OR CSC 1060	Computer Science 1 (C++ section)	(4 credits)
CAD 1101+1102	Computer Aided Drafting (preferred for Architectural)	
CAD 2220	Revit Architecture (preferred for Civil)	
CAD 2455+MAC 1042	Solid Works and Machining Lab (preferred for Mechanical)	
EGG 1040	Engineering Projects	(3 credits)
EGG 2011	Statics	(Civ/Mech/Arch/Env options)

Humanities and Social Sciences (H/SS):

- Up to Nine (9) credit hours at the lower division (1000-2000) level
    - Six (6) credit hours 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 Applied Mathematics

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 for free electives

Arapahoe Community College (first two years)

Fall Semester 1

Course	Course Title	Credits
MAT 121	College Algebra*	4
CHE 101	Intro to Chemistry (with Lab)*	5
ENG 121	English Composition*	3
	Total Credits	12

Spring Semester 1

Course	Course Title	Credits
MAT 166	Pre-Calculus*	5
COM 115	Public Speaking*	3
	Free Elective	3
	Free Elective	3
	Total Credits	14

Fall Semester 2

Course	Course Title	Credits
MAT 201	Calculus 1	5
CHE 111	Chemistry 1 (with lab)	5
CSC 160	Computer Science 1	4
	Humanities/Social Science	3
	Total Credits	17

Spring Semester 2

Course	Course Title	Credits
MAT 202	Calculus 2	5
PHY 211	Physics 1	5
	CAD (227, 101+102 or 255-259)	--
	Total Credits	10+

CU-Boulder (last three years)

Fall Semester 3

Course	Course Title	Credits
APPM 2350	Calculus 3	4
PHYS 1120	Physics 2	4
PHYS 1140	Experimental Physics	1
	Technical Elective	3
	Humanities/Social Science	3
	Total Credits	15

Spring Semester 3

Course	Course Title	Credits
APPM 2360	Differential Eq./Lin. Algebra	4
APPM 3310	Matrix Methods	3
	Technical Elective (x2)	6
	Engineering Writing Course	3
	Total Credits	16

CU-Boulder (last three years)…continued

Fall Semester 4

Course	Course Title	Credits
APPM 4350	Methods in Applied Math 1	3
APPM 4440	Applied Analysis 1	3
	Technical Elective	3
	Humanities/Social Science	3
	Total Credits	12

Spring Semester 4

Course	Course Title	Credits
APPM 4360	Methods in Applied Math 2	3
APPM 4xxx	Upper-division APPM	3
	Technical Electives (x2)	6
	UD Humanities/Social Science	
	Total Credits	16

Fall Semester 5

Course	Course Title	Credits
APPM 4350	Methods in Applied Math 1	3
APPM 4440	Applied Analysis 1	3
	Technical Elective	3
	Humanities/Social Science	3
	Total Credits	12

Spring Semester 5

Course	Course Title	Credits
APPM 4360	Methods in Applied Math 2	3
APPM 4xxx	Upper-division APPM	3
	Technical Electives (x2)	6
	UD Humanities/Social Science	
	Total Credits	16