

University of Colorado **Denver**

Front Range Community College (FRCC) to CU-Denver Transfer Advising Guide for Computer Science (B.S.)

College of Engineering, Design and Computing

[Computer Science and Engineering Department Website](#)

Program Overview:

The computer scientist is a professional who must be prepared to apply his or her skills, knowledge and creativity in a rapidly changing field. The Bachelor of Science in computer science at CU Denver prepares students for such creative work. The emphasis is on fundamental concepts and basic principles with a long useful life. The Computer Science Bachelor of Science program is accredited by the Computing Accreditation Commission of ABET, <http://www.abet.org>. The Program Educational Objectives of the undergraduate computer science program are to produce graduates who:

- Advance professionally as productive, practicing professionals in computer science & related careers through the continued development of their expertise & skills.
- Further develop their knowledge, skill set, and career opportunities through graduate education and/or professional studies.
- Function effectively as a part of a team to succeed in their professional careers.

Admission Requirements:

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

FRCC Course Options: (the following courses will apply directly to the degree)

* **BOLD denotes admission requirement courses**

Core Curriculum: (Please consult [CU Denver Core Curriculum](#) and [Transferology](#)) FRCC Credits

ENG 121	English Composition 1	(3 credits)
ENG 122	English Composition 2	(3 credits)
Arts & Humanities	Two Courses (GT-AH1, AH2, AH3, or AH4)	(6 credits)
Social & Behavior Science	Two courses (GT-SS1, GT-SS2, or GT-SS3)	(6 credits)
History	GT-HI1	(3 credits)

Mathematics:

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

Science: (One of the following 3 science sequences will apply directly to the degree.)

PHY 211* & 212	Physics I and II (Calc based) with lab	(10 credits)
CHE 111 & 112	General Chemistry I and II with lab	(10 credits)
BIO 111 & 112	General Biology I and II with lab	(10 credits)

Engineering/Computer Science:

CSC 160	Computer Science 1 (C++ only)	(4 credits)
CSC 161	Computer Science 2 (C++ only)	(4 credits)
CSC 225	Computer Arch/Assembly Language	(4 credits)

Suggested Five-Year Course Plan for Computer Science (B.S.)

This is a suggested guide of coursework only and is subject to change. Students should consult with a CU Denver academic advisor as soon as possible prior to transferring. CU Denver courses may be reverse transferred to earn a community college associate degree. Course credits shown below reflect those awarded by the institution offering the course.

* denotes courses that do not apply to the B.S. degree

Front Range Community College (FRCC) first two years

Fall Semester 1

Course	Course Title	Credits
MAT 121	College Algebra*	4
ENG 121	English Composition 1	3
EGG 100	Intro to Engineering*	1
	Art/Hum/SS/BS/Hi	3
	Art/Hum/SS/BS/Hi	3
	Total Credits	14

Spring Semester 1

Course	Course Title	Credits
MAT 166 or 122	Pre-Calculus or Trigonometry *	3/5
ENG 122	English Composition 2	3
CHE 111/PHY 211/BIO 111	Science 1 with lab	5
CSC 119	Intro to Programming*	3
	Total Credits	14-16

Fall Semester 2

Course	Course Title	Credits
MAT 201	Calculus 1	5
CHE 112/PHY 212/BIO 112	Science 2 with lab	5
CSC 160	Computer Science 1 (C++ only)	4
	Art/Hum/SS/BS/Hi	3
	Total Credits	17

Spring Semester 2

Course	Course Title	Credits
MAT 202	Calculus 2	5
CSC 161	Computer Science 2 (C++ only)	4
	Art/Hum/SS/BS/Hi	3
	Art/Hum/SS/BS/Hi	3
	Total Credits	15

CU-Denver (last three years)

Fall Semester 3

Course	Course Title	Credits
CSCI 1411	Fundamentals of Computing Lab	1
CSCI 1510	Logic Design	3
CSCI 2421	Data Structures & Program Design	3
CSCI 2511	Discrete Structures	3
MATH 3195	Linear Algebra/Diff Equations	4
	Total Credits	14

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

Spring Semester 3

Course	Course Title	Credits
CSCI 2525	Assembly Language & Computer Org.	3
CSCI 3761	Intro to Computer Networks	3
CSCI 3412	Algorithms	3
	CS Elective	3
	Cultural Diversity	3
	Total Credits	15

Fall Semester 4

Course	Course Title	Credits
CSCI 3287	Database Systems	3
CSCI 3415	Principles Programming Language	3
CSCI 3453	Operating Systems	3
	CS Elective	3
	CS Elective	3
	Total Credits	15

Spring Semester 4

Course	Course Title	Credits
CSCI 3508	Software Engineering	3
CSCI 4591	Computer Architecture	3
	CS Breadth	3
	CS Breadth	3
	CS Breadth	3
	Total Credits	15

Fall Semester 5

Course	Course Title	Credits
	CS Breadth: Senior Design 1	3
CSCI 4551	Parallel & Distributed Systems	3
	CS Breadth	3
	CS Breadth	3
	Total Credits	15

Spring Semester 5

Course	Course Title	Credits
	CS Breadth: Senior Design 2	3
CSCI 4034	Theoretical Foundations of Computer Science	3
	CS Breadth	3
	CS Breadth	3
	Total Credits	12