



University of Colorado **Denver**

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

College of Engineering, Design and Computing

[Computer Science and Engineering Department Website](#)

### Program Overview:

The Computer Science B.A. degree is designed with a modular approach and 35 free elective credits that allows students to customize their program by combining a strong grounding in computer science with an area of concentration aligned in other academic disciplines aligned with their interest. Students are encouraged to use their free electives to pursue minors and dual majors in other academic disciplines. The program's computer science curriculum includes courses in topics such as algorithm development, programming language concepts, hardware software interfaces, database systems and the structure of computers. Later portions of the program focus on computer architecture, the interrelationship of hardware and software, embedded systems, computer networks and software design. The Computer Science B.A. degree prepares students for fast paced and high demand careers in computer science and career fields that rely on computing.

### 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

<u>Core Curriculum:</u> (Please consult <a href="#">CU Denver Core Curriculum</a> and <a href="#">Transferology</a> )		<u>FRCC Credits</u>
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)
 <u>Mathematics:</u> (Two courses total. Please consult CU CSE department for questions.)		
MAT 201	Calculus 1	(5 credits)
MAT 135	Statistics	(3 credits)
MAT 202	Calculus 2	(5 credits)
 <u>Science:</u> (One of the following 4 science sequences will apply directly to the degree.)		
PHY 111 & 112	Physics I and II	(10 credits)
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)
 <u>Engineering/Computer Science:</u>		
CSC 160	Computer Science 1 (C++ only)	(4 credits)
CSC 161	Computer Science 2 (C++ only)	(4 credits)

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

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 count toward a community college associate degree. Course credits shown below reflect those awarded by the institution offering the course.

### 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
	<b>Total Credits</b>	<b>14</b>

\* if taken, course counts as free elective toward BA degree

#### 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 111/BIO 111	Science 1 with lab	5
CSC 119	Intro to Programming*	3
	<b>Total Credits</b>	<b>14/16</b>

\* if taken, course counts as free elective toward BA degree

#### 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
	<b>Total Credits</b>	<b>14</b>

#### Spring Semester 2

Course	Course Title	Credits
MAT 135 or MAT 202	Statistics or Calc 2	3/5
CSC 161	Computer Science 2 (C++ only)	4
	Art/Hum/SS/BS/Hi	3
	Art/Hum/SS/BS/Hi	3
	Art/Hum/SS/BS/Hi	3
	<b>Total Credits</b>	<b>16/18</b>

### CU-Denver (last two years)

#### Fall Semester 3

Course	Course Title	Credits
CSCI 1411	Fundamentals of Computing Lab	1
CSCI 2421	Data Structures & Program Design	3
CSCI 2511	Discrete Structures	3
	Free Elective	3
	Free Elective	3
	Free Elective	3
	<b>Total Credits</b>	<b>16</b>

#### Spring Semester 3

Course	Course Title	Credits
CSCI 3287	Database Systems	3
	CS Elective	3
	CS Elective	3
	Free Elective	3
	Free Elective	3
	Cultural Diversity	3
	<b>Total Credits</b>	<b>18</b>

#### Fall Semester 4

Course	Course Title	Credits
CSCI 3412	Algorithms	3
	CS Elective	3
	CS Elective	3
	CS Elective	3
	Free Elective	3
	<b>Total Credits</b>	<b>15</b>

#### Spring Semester 4

Course	Course Title	Credits
CSCI 3508	Software Engineering	3
	CS Elective	3
	CS Elective	3
	Free Elective	3
	Free Elective	3
	<b>Total Credits</b>	<b>15</b>