



RRCC 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.](#)

RRCC Course Options: (the following courses will apply directly to the degree. In addition to the courses shown below, many other courses will apply to the free elective requirement for the degree.)

<u>Core Curriculum:</u> (Please consult CU Denver Core Curriculum and Transferology)		<u>RRCC Credits</u>
ENG 121/131	English Composition 1 / Technical Writing 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	One GT-HI1	(3 credits)
 <u>Mathematics:</u> (Two courses total. Please consult CU CSE dept 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 (algebra-based) with lab	(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 Four-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.

Pre-Engineering at Red Rocks Community College (RRCC)

These are recommended courses for students who need preparation for the calculus sequence, chemistry, and computer science.

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

MAT 055/MAT 121 Combined Pre-Algebra and College Algebra, 8 credits

MAT 121 College Algebra, 4 credits

MAT 122 Trigonometry, 4 credits

CHE 101 Introduction to Chemistry, 5 credits

Red Rocks Community College (RRCC) first two years

Fall Semester 1

Course	Course Title	RRCC Credits
MAT 201	Calculus 1	5
ENG 121	English Composition 1	3
SCI 1 or 2	SC-1 or SC -2	4/5
COM 220	Intercultural Comm. GT-SS3	3
	Total Credits	15/16

Spring Semester 1

Course	Course Title	RRCC Credits
MAT 135	Statistics or MAT 202 Calc 2	3/5
CSC 119	Intro to Programming	3
PHI 113	Logic (GT-AH3)	3
	GT-SS1, SS2, or SS3	3
	GT-HI1	3
	Total Credits	15/17

Fall Semester 2

Course	Course Title	RRCC Credits
	Approved AS Sci/Math Elective	4/5
CSC 160	Computer Science 1 C++ only	4
ENG 122	English Composition 2	3
PHY111/211 CHE111 BIO 111	Phys I, Chem I, or Bio I w lab	5
	Total Credits	16/17

Spring Semester 2

Course	Course Title	RRCC Credits
	GT-SS1, SS2, or SS3	3
CSC 161	Computer Science 2 C++ only	4
PHY112/212 CHE112 BIO 112	Phys 2, Chem 2, or Bio 2 w lab	5
	GT-AH1, AH2, AH4	3
	Total Credits	15

CU-Denver (last two years)

Fall Semester 3

Course	Course Title	CU - Denver 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
	Total Credits	13

Spring Semester 3

Course	Course Title	CU - Denver Credits
CSCI 3287	Database Systems	3
	CS Elective	3
	CS Elective	3
	Free Elective	3
	Cultural Diversity	3
	Total Credits	15

Fall Semester 4

Course	Course Title	CU - Denver Credits
CSCI 3412	Algorithms	3
	CS Elective	3
	CS Elective	3
	CS Elective	3
	Free Elective	3
	Total Credits	15

Spring Semester 4

Course	Course Title	CU - Denver Credits
CSCI 3508	Software Engineering	3
	CS Elective	3
	CS Elective	3
	Free Elective	3
	Free Elective	3
	Total Credits	15