



RRCC 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.](#)

RRCC Course Options: (the following courses will apply directly to 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>		
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)
<u>Science:</u> (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)
<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.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 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.S. 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

CSC 119, Introduction to Programming*, 3 credits

Red Rocks Community College (First 2 Years)

RRCC Fall Semester 1

Course	Course Title	Credits
MAT 201	Calculus 1	5
ENG 121	English Composition 1	3
	GT-AH**	3
COM 220	Intercultural Comm. GT-SS3	3
	Total Credits	14

RRCC Spring Semester 1

Course	Course Title	Credits
MAT 202	Calculus 2	5
ENG 122	English Composition 2	3
PHY211, CHE111, BIO 111	Phys I, Chem I, or Bio I w lab	5
CSC 160	Computer Science 1 C++ only	4
	Total Credits	17

RRCC Fall Semester 2

Course	Course Title	Credits
MAT 204	Calculus 3*	5
CSC 161	Computer Science 2 C++ only	4
EGT 140	IDEA (engineering projects)*	3
PHY212, CHE112, BIO112	Phys 2, Chem 2, or Bio 2 w lab	5
	Total Credits	17

RCC Spring Semester 2

Course	Course Title	Credits
MAT 261	Differential Equations	4
	GT-AH**	3
	GT-HI**	3
	GT-SS, HI** (choose)	3
	Total Credits	13

**See RRCC advisor for course selection

See Advisor: This transfer plan is missing one additional SC1 or SC2 Science course to complete Associate of Science degree.

CU Denver (Last 3 Years)

CU Denver Fall Semester 3

Course	Course Title	Credits
MATH 3191	Linear Algebra	3
CSCI 1411	Fundamentals of Computing Lab	1
CSCI 1510	Logic Design	3
CSCI 2421	Data Structures & Program Design	3
PHYCSCI 2511	Discrete Structures	3
	Total Credits	17

CU Denver 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 Transfer AS
	Total Credits	15

***Course apply toward completion of AS degree. See advisor

CU Denver 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

CU Denver Spring Semester 4

Course	Course Title	Credits
CSCI 3508	Software Engineering	3
CSCI 4591	Computer Architecture	3
	CS Breadth	3
	CS Breadth	3
	Total Credits	12

CU Denver Fall Semester 5

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

CU Denver Spring Semester 5

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