Computer Science

Bachelor of Science (B.S.) – Catalog Year 2026-2027

FOR TRANSFER STUDENTS

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.

ACADEMIC ADVISING

Students admitted to the College of Engineering, Design and Computing (CEDC) who have declared a major should to meet with an advisor in their specific department and should contact that department to schedule an appointment.

Computer Science & Engineering
ComputerScience@ucdenver.edu
Visit the academic advising website here
1380 Lawrence Street Center, 8th Floor
303-315-1408

GENERAL GRADUATION REQUIREMENTS & POLICIES

All College of Engineering, Design and Computing (CEDC) students are required to complete the following minimum general graduation requirements:

1. Complete a minimum of 128 credit hours.
2. Achieve a minimum 2.0 grade point average (GPA) for all courses attempted, for all required courses and for all courses taken within the student's major department.
3. Complete all CU Denver Core, CEDC, and major requirements.
4. Complete a minimum of 30 credit hours as a declared CEDC student in good standing at CU Denver.
5. Complete at least the final two semesters as an enrolled CEDC student.

PROGRAM REQUIREMENTS & POLICIES

The following program requirements are based on degree requirements for the current Catalog year at CU Denver and are subject to change. Students are responsible for completing degree requirements based on the Catalog year for which they are admitted.

Students are responsible for meeting with the major/faculty advisor in the department to confirm major requirements. Student completing the Computer Science B.S. degree are required to complete the following minimum program requirements:

1. Complete 24 credit hours of **CU Denver Core Curriculum coursework**.
2. Complete 3 credit hours of **Engineering Design**.
3. Complete a minimum of 46 credit hours of required **computer science & computer science systems core courses**.
4. Complete 18 credit hours of **computer science breadth courses**.
5. Complete a minimum of 15 credit hours of **computer science technical electives**.
6. Complete 22 credit hours of **mathematics and science**.

COURSEWORK THAT CAN BE COMPLETED AT PREVIOUS INSTITUTION

The following is a "bucket" of requirements students can complete prior to transferring to CU Denver, including equivalent Colorado Community College System (CCCS) courses. To determine the equivalencies of non-computer science courses to be completed at non-CU Denver institutions, students can visit https://transferology.com/school/ucdenver. **It is critical students connect with a CU Denver academic advisor to ensure planned courses will transfer *and* apply to CU Denver degree requirements.** All non-CU Denver coursework must be completed with a C- or better to be eligible for transfer.

Students interested in completing an Associate (A.A. or A.S.) Degree or a Colorado Statewide Transfer Articulation Agreement or Degree with Designation (DWD) must work with their community/junior college academic advisor to create an academic plan that accounts for all degree or transfer articulation agreement requirements. Colorado Community College Students may also explore the option to complete Reverse Transfer at CU Denver.

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CU Denver Requirements	CU Denver Credits	CCCS Equivalent Courses & Notes	CCCS Credits
CU Denver Core Curriculum Requirements	**24**		
ENGL 1020 – Core Composition I	3	ENG 1021	3
ENGL 2030 – Core Composition II	3	ENG 1022	3
Arts	3	GT-AH	3
Humanities	3	GT-AH or GT-HI	3
Behavioral Sciences	3	GT-SS	3
Social Sciences	3	GT-SS or GT-HI*	3
International Perspectives	3	Additional GT-AH, HI, SS* *(see note below)*	3
Cultural Diversity	3	**To be completed at CU Denver. This requirement must be completed with an upper-division course and CCCS courses will not apply.*	
Required Mathematics Courses	**12**		
MATH1401 Calculus I	4	GT-MA1 *(MAT 2410)*	5
MATH2411 Calculus II	4	GT-MA1 *(MAT 2420)*	5
MATH3195 Linear Algebra and Differential Equations	4	MAT 2562	4
Required Science	**10**	*For choice 1 & 2 addtl credits: CS course, science above chosen sequence, math beyond Calc II or ENGR elective*	
*Choice 1: BIOL 2051 & 2071; BIOL 2061 & 2081	8	GT-SC1 (1111 & BIO 1112)	10
*Choice 2: CHEM 2031 & 2038; CHEM 2061 & 2068	9	GT-SC1 (CHE 1111 & CHE 1112)	10
Choice 3: PHYS 2311 & 2321; PHYS 2331 & 2341	10	GT-SC1 (PHY 2111,2112)	10
Computer Science Core	**7**		
CSCI 1410/1411 Fundamentals of Computing with lab	4	CSC 1060	4
CSCI 2312 Object Oriented Programming	3	CSC 1061 only IF taught in C++	4
Total Hours			53

*The applicability of Guaranteed Transfer (GT Pathways) courses to specific CU Denver Core Curriculum requirements requires completion of a block of five courses: two GT-AH courses; one GT-HI course; one GT-SS course; and one additional GT-AH, GT-HI, or GT-SS course.

SAMPLE PLAN – COURSEWORK TO BE COMPLETED AT CU DENVER

Based on successful completion of applicable transfer credits and the complete "bucket" of requirements outlined above, students would have the following courses remaining to complete at CU Denver. At CU Denver, students must tailor this plan based on the evaluation of previously completed college coursework (e.g., AP, IB, CLEP, dual/concurrent enrollment, and transfer credit), course availability, individual preferences related to course load, summer term courses, part-time or full-time student status, or add-on programs such as minors or double-majors.

Students deviating from this plan must fulfill course prerequisites and must meet with the faculty advisor in their department to confirm degree requirements. Students intending to transfer to CU Denver to pursue a Computer Science B.S. degree should note the following:

1. The College of Engineering, Design and Computing has a competitive admissions process. Students may be admitted to CU Denver but not the College of Engineering, Design and Computing. Such students may work with CU Denver's Academic Success and Advising Center to identify an alternative major and/or program of study.
2. Colorado Community College students should transfer to CU Denver once they have met the College of Engineering, Design and Computing's admission requirements. They should not necessarily complete an associate's degree.
3. Please note that MAT 121: College Algebra and MAT 166: Pre-Calculus will not transfer into the BSCS degree, but are required to take before Calculus if the student is not Calculus ready.

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YEAR ONE

Semester 1	CRS
ENGR 1200 FUND. OF ENGINEERING DESIGN INNOVATION	3
CSCI 1510 LOGIC DESIGN	3
CSCI 2421 DATA STRUCTURES & PROGRAM DESIGN	3
CSCI 2511 DISCRETE STRUCTURES	3
ENGR 1200 FUND. OF ENGINEERING DESIGN INNOVATION	3

Semester 2	CRS
CSCI 2525 ASSEMBLY LANGUAGE & COMPUTER ORG.	3
CSCI 3412 ALGORITHMS	3
CS TECHNICAL ELECTIVE	3
CU CORE CULTURAL DIVERSITY	3
CSCI 2525 ASSEMBLY LANGUAGE & COMPUTER ORG.	3

YEAR TWO

Semester 3	CRS
CSCI 3287 DATABASE SYSTEMS	3
CSCI 3508 SOFTWARE ENGINEERING	3
CSCI 3761 INTRODUCTION TO COMPUTER NETWORKS	3
CS BREADTH	3
CS TECHNICAL ELECTIVE	3

Semester 4	CRS
CSCI 3415 PRINCIPLES OF PROGRAMMING LANG	3
CSCI 3453 OPERATING SYSTEMS	3
CS BREADTH	3
CS TECHNICAL ELECTIVE	3

YEAR THREE

Semester 5	CRS
CSCI 4034 THEORETICAL FOUNDATIONS OF COMPUTER SCIENCE	3
CSCI 4551 PARALLEL & DISTRIBUTED SYSTEMS	3
CS BREADTH: SENIOR DESIGN 1	3
CS BREADTH	3
CS TECHNICAL ELECTIVE	3

Semester 6	CRS
CSCI 4591 COMPUTER ARCHITECTURE	3
CS BREADTH: SENIOR DESIGN 2	3
CS BREADTH	3
CS TECHNICAL ELECTIVE	3

Total Hours at CU Denver: 78