



COMPUTER SCIENCE, A.S. (Transfer Major)

COURSES THAT FULFILL GENERAL EDUCATION REQUIREMENTS

CONTENT AREA	COURSE NUMBER AND COURSE TITLE	TOTAL CREDITS
WRITTEN COMMUNICATION*	ENG 1021: ENGLISH COMPOSITION I* ENG 1022: ENGLISH COMPOSITION II <i>*Mines does not accept ENG 1021. ENG 1022 OR ENG 1031 is required for Colorado School of Mines</i>	6
MATHEMATICS	MAT 2410: CALCULUS 1 (REQUIRED) <i>Note: additional coursework may be required before taking MAT 2410</i>	5
ARTS & HUMANITIES* (SELECT TWO)	PHI 2018: ENVIRONMENTAL ETHICS PHI 2005: BUSINESS ETHICS PHI 1013: LOGIC	6
HISTORY* (SELECT ONE)	HIS 2200: HISTORY OF LATIN AMERICA HIS 2015: 20 th CENTURY WORLD HISTORY HIS 2110: AFRICAN AMERICAN HISTORY	3
SOCIAL & BEHAVIORAL SCIENCES*	ECO 2001: PRINCIPLES OF MACROECONOMICS ECO 2002: PRINCIPLES OF MICROECONOMICS	6
NATURAL & PHYSICAL SCIENCES (SELECT TWO)*	CHE 1111: GENERAL CHEMISTRY 1 WITH LAB (5 CR) CHE 1112: GENERAL CHEMISTRY 2 WITH LAB (5 CR) PHY 2111: CALCULUS BASED PHYSICS I WITH LAB (5 CR) PHY 2112: CALCULUS BASED PHYSICS II WITH LAB (5 CR) <i>Note: Courses in sequence are recommended.</i>	10
GENERAL EDUCATION CREDITS		36

*Colorado School of Mines ("Mines") has specific requirements. Please ask your Pathway Advisor.

ADDITIONAL REQUIRED COURSES FOR COMPUTER SCIENCE, A.S.

CONTENT AREA	COURSE NUMBER AND COURSE TITLE	TOTAL CREDITS
COMPUTER SCIENCE	CSC 1060: COMPUTER SCIENCE I: C++ <i>Note: additional coursework may be required before taking CSC 1060</i>	4
COMPUTER SCIENCE	CSC 1061: COMPUTER SCIENCE II: C++	4
COMPUTER SCIENCE	CSC 2025: COMPUTER ARCHITECTURE/ASSEMBLY LANGUAGE PROGRAMMING (not required at Mines, transfers as an elective)	4
ADDITIONAL REQUIRED PROGRAM CREDITS		12

ELECTIVE COURSES

COURSE NUMBER AND COURSE TITLE	CREDITS	
MAT 2420: CALCULUS II (5 CR) (Required at most computer science programs. Ask your Pathway Advisor.) CSC 2065: DISCRETE STRUCTURES (4 CR) (Required at CSU, CU Boulder, CU Denver, and UNC.) MAT 2540: LINEAR ALGEBRA (3 CR) (Required at CU Boulder.) MAT 2430: CALCULUS III (4 CR) (Required at Mines.) MAT 2431: CALCULUS III with ENGINEERING APPLICATIONS (5 CR) (Required at Mines.) CSC 2034: C++ PROGRAMMING (4 CR) (Required at CSU, but not offered at CCA.)	12	
TOTAL CREDIT HOURS		60

For additional information contact your [Pathways Advisor](#)

www.ccaurora.edu/meet-our-pathways-advisors

CATALOG: 2022-2023





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Recommended order of courses¹

(The department recommends taking the courses in this order to complete the degree.)

FOR COURSES THAT ARE NOT REQUIRED: If you cannot register for the course on this map or want to take one that is not listed, please talk to your pathway advisor.)

SEMESTER 1	CREDITS
CHE 1111: General Chemistry 1 with Lab	5
ENG 1021: English Composition I	3
HIS 2200: Latin American History or HIS 2015: 20th Century World History or HIS 2110: African American History	3
MAT 2410: Calculus 1	5
SEMESTER CREDITS	16
SEMESTER 2	CREDITS
CSC 1060: Computer Science I: C++	4
ECO 2001: Principles of Macroeconomics	3
ENG 1022: English Composition II	3
MAT 2420: Calculus II	5
SEMESTER CREDITS	15
SEMESTER 3	CREDITS
CSC 1061: Computer Science II: C++	4
CSC 2025: Computer Architecture/Assembly Language Programming	4
PHI 2005: Business Ethics	3
PHY 2111: Calculus Based Physics I with Lab	5
SEMESTER CREDITS	16
SEMESTER 4	CREDITS
CSC 2065: Discrete Structures	4
ECO 2002: Principles of Microeconomics	3
MAT 2540: Linear Algebra	3
PHI 1013: Logic	3
SEMESTER CREDITS	13

¹ Placement into courses is dependent on test scores or credit for prior learning. See a Pathways Advisor for details. Plans that include ESL, CCR, and AAA courses will increase the total number of hours to completion.