Cybersecurity and Secure Computing (CSSC)
Undergraduate Certificate Pathways

Pathways to obtaining the certificate for students include the list of prerequisite courses for the required courses. Please see the complete list of courses including prerequisites in the table below.

CSSC Requirements:
The following classes need to be taken with a grade of C- or better:
- CSCI 3761: Introduction to Computer Networks
- CSCI 3453: Operating Systems Concepts
- CSCI 4034: Theoretical Foundations of Computer Science
- CSCI 4741: Principles of Cybersecurity
- CSCI 4743: Cyber and Infrastructure Defense

The CSSC Certificate requires a minimum cumulative GPA of 2.0

Pathways for Students which include course prerequisites for CSSC Requirements:
BSCS Student
Complete all BSCS Core & System Core Courses
Complete CSCI 4741 as a Breadth Course in Secure Computing
Complete CSCI 4343 as a CS Technical Elective

BACS Student
Complete all BACS Core Courses
Complete the following courses as Free Electives: CSCI 1510 & 2525
Complete the following courses as Technical Electives: CSCI 3453, 3761, 4034, 4741 & 4743

CS Minor
Complete all CS Minor Core Courses
Complete the following courses as Minor Electives: CSCI 2511, 3287, 3476 & 4741
Complete the following additional courses: CSCI 1510, 2525, 3412, 3453, 4034 & 4743

Other Majors or Non-Degree Students:
Students applying from outside CU Denver need to provide their transcript for transfer evaluation of their prior CS courses (if applicable).

Complete the following math courses: MATH 1401
Complete the following CS courses: CSCI 1410, 1411, 1510, 2312, 2421, 2511, 2525, 3287, 3412, 3453, 3761, 4034, 4741 & 4743

Complete list of required CSCI courses including prerequisites:

Courses	Credits	Notes
CSCI 1410 Fundamentals of Computing	3	*Prerequisite: Freshman status, Co-Requisite: CSC 1411
CSCI 1411 Fundamentals of Computing Lab	1	*Prerequisite: Freshman status, Co-Requisite: CSC 1410
CSCI 1510 Logic Design	3	*Prerequisite: Freshman status, MATH 1120/1130 or Eq.
CSCI 2312 Object Oriented Programming	3	*Prerequisite: CSCI 1410 & CSCI 1411
CSCI 2421 Data Structures & Program Design	3	*Prerequisite: CSCI 2312
CSCI 2511 Discrete Structures	3	*Prerequisite: MATH 1401
CSCI 2525 Assembly Language & Computer Org.	3	*Prerequisite: CSCI 1410 & CSCI 1510
CSCI 3287 Database Systems	3	*Prerequisite: ENGL 1020, CSCI 2312 & 2421
CSCI 3412 Algorithms	3	*Prerequisite: CSCI 2312, 2421 & 2511
CSCI 3453 Operating Systems Concepts	3	*Prerequisite: CSCI 3412 & 2525
CSCI 3508 Introduction to Software Engineering	3	*Prerequisite: CSCI 3412
CSCI 3761 Introduction to Computer Networks	3	*Prerequisite: CSCI 2312 & 2421
CSCI 4034 Theoretical Foundations of Computer Science	3	*Prerequisite: CSCI 3412
CSCI 4741 Principles of Cyber Security	3	*Prerequisite: CSCI 3761
CSCI 4743 Cyber and Infrastructure Defense	3	*Prerequisite: CSCI 3761