

Central Connecticut State University
School of Engineering, Science, and Technology

Degree: Bachelor of Science
Program: Cybersecurity – Cyber Operations
Effective Term: Fall 2025

Name: _____

ID#: _____

General Education: Ways of Understanding:

Arts & Humanities (9 credits)

	Credits	Grade
Literature	3	

Social & Behavioral Sciences (12 credits)

History	3	
PS 110 or PS 210	X	

Math & Natural Sciences (9-10 credits)

MATH 152	X	
MATH 217	X	
Lab Science	3-4	

General Education: Essential Skills:

Written & Oral Communication (6 credits)

WRT 105 or 110	3	

World Language (0-6 credits) or Gen Ed Free Elective (3 credits)

World Language course numbered 112 or 118* or Gen Ed Free Elective	3	
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Thriving in College (2-3 credits)

CCSU 102, 103, or FYE course**	2-3	
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A maximum of 16 credits (4 courses) applied towards Ways of Understanding and Essential Skills requirements may be used to fulfill a major and/or minor requirement.

International & Equity, Justice, & Inclusion (EJI) Requirements:

International	3	
International	3	
Equity, Justice, & Inclusion***	3	

Coursework applied toward International & EJI requirements may be used in any other area of general education or program requirements.

Honors Program: HON courses can be used to fulfill certain general education requirements. Consult the Honors Program curriculum for details.

Residency Requirements: A minimum of 30 credits overall must be completed in residence, with at least 15 credits in the major (at least 12 of which must be at the 300 level or above) and 9 credits in a minor at Central. In residence means attending classes conducted on campus or under supervision of Central.

Cybersecurity Core Requirements (51-52 credits)

	Credits	Grade
CET 229 Computer Hardware Architecture	3	
CET 249 Introduction to Networking Technology	3	
CYS 227 Introduction to Cybersecurity	3	
CET 339 Computer System Administration	3	
CET 349 Network Routing	3	
CYS 459 Network Security Technologies	3	
CYS 467 Security System Management	3	
CYS 477 Ethical Hacking & Penetration Testing	3	
CS 151 Computer Science I	3	
CS 152 Computer Science II	3	
CS 253 Data and File Structures	3	
CS 355 Systems Programming	3	
CYS 492 Computer Security	3	
CYS 493 Secure Software Systems	3	
CYS 494 Cryptographic Systems	3	
CRM 414 Cybercrime or PS 210 Int'l and Domestic Legal Envriion of Cybersec	3-4	
CYS 400 Internship & Senior Seminar	1-3	

Coursework applied toward Related or Additional requirements may be used in any other area of general education or program requirements.

Cybersecurity Additional Requirements (11 credits)

PS 110 American Govt and Politics or PS 210 Int'l and Domestic Legal Envriion of Cybersec	3	
MATH 152 Calculus I	4	
MATH 217 Discrete Math for CS	4	

Cyber Operations Concentration Requirements (24 credits)

CET 223 Basic Electrical Circuits	3	
CET 363 Digital Circuits	3	
CS 254 Computer Org & Assmby Lang Programming	3	
CS 481 Operating Systems Design	3	
CET 466 Logic Design	3	
CET 469 Wireless Networks and Security	3	
CYS 291 Introduction to Computer Forensics OR CYS 487 Network Forensics	3	
CYS 419 Usable Security and Privacy OR CYS 455 Principles of Secure Software Dev	3	

Is a Minor Required with this Major?

Yes No

Free Electives may be used, as needed, to reach the total credits required for the degree when all other degree requirements have been met.

Total Credits Required for Degree: 120

* Students with 3 years, or more, of one world language at the high school level, a passing score on a world language placement exam, or native proficiency in a language other than English will have the World Language requirement waived and can satisfy this requirement with any general education free elective course (3cr).

** Transfer students with 24 or more transfer credits at the time of admission can satisfy this requirement with any general education free elective (3cr).

*** Waived for transfer students with 50 or more transfer credits at the time of admission.