



Computer Science Core Curriculum (Bachelor of Science)

Cyber Security / Cyber Operations Career Focus (2021-22)

Aligned with ACM Cybersecurity Curriculum, NSA/DHS Cyber Ops Curriculum and NIST National Initiative for Cybersecurity Education Framework

Required Core Courses:

CS 1300 Discrete Structures (3)
CS 1400 Introduction to Programming and Problem Solving (4)
CS 2400 Data Structures and Advanced Programming (4)
CS 2600 Systems Programming (3)
CS 2610 Intro to Cyber Security and Networking (3)
CS 2640 Computer Organization and Assembly Programming (3)
CS 3010 Numerical Methods (3)
CS 3110 Formal Languages and Automata (3)
CS 3310 Design and Analysis of Algorithms (4)
CS 3650 Computer Architecture (4)
CS 3750 Computers and Society (3, GE B5 or D4)
CS 4080 Programming Languages (3)
CS 4310 Operating Systems (3)
CS 4630 Undergraduate Seminar (1)
CS 4800 Software Engineering (3)
+ GE courses: BIO 1110/1110L (3), MAT 1140 (4), MAT 1150 (4), PHY 1510/1510L (4), STA 2260 (3).

Required Elective Core Courses for the Cyber Security/ Cyber Operations career focus

CS 3800 Computer Networks (3)
CS 4600 Cryptography and Information Security (3)
CS 4640 Network and Web Security (3)
CS 4990 Software Security and Reverse Engineering (3)
CS 4990 Wireless and Mobile Security (3)
CS 4610/4620 Senior Project in Cyber Security (1)

*Students completing the Cyber Security/ Cyber Operations Career Focus Electives will receive the PolySec Cyber Warrior Digital Badges.
Please e-mail polysec@cpp.edu for more information.*