

**College of Engineering
Bradley Department of Electrical and Computer Engineering
Minor in Cybersecurity
For Students Entering Under the UG Catalog 2023-2024**

Required Courses (must take both):

ECE 4560: Applied Computer and Network Security Fundamentals (Prerequisites: ECE 3564 **OR** CS 3214) 3 _____

CS 4264: Principles of Computer Security (Prerequisites: CS 3214 **OR** (ECE 3504, ECE 3574)) 3 _____

Networks Group (must take one):

ECE 3564: Intro to Computer Networking (Prerequisites: ECE 2714, ECE 2804, STAT 4714), 3 credits 3 _____

ECE 4564: Network Application Design (Prerequisites: ECE 3564, ECE 3514), 3 credits

CS 3754: Cloud Software Development (Prerequisite: CS 2114), 3 credits

CS 4254: Computer Network Architecture & Programming (Prerequisite: CS 3214), 3 credits

Systems Group (must take one):

CS 3214: Computer Systems (Prerequisites: (CS 2506, CS 2114) **OR** (ECE 2564, ECE 3574)), 3 credits 3 _____

CS/ECE 4504: Computer Organization (Prerequisites: ECE 3504 **OR** CS 3214), 3 credits

ECE 3574: Applied Software Engineering (Prerequisites: ECE 2804, ECE 3514), 3 credits

CS 4274 Secure Computing Capstone (pre: CS 3114 (C), CS 4264) 3 credits

Interdisciplinary Group (must take one):

ACIS 4684: Information Systems Security & Assurance (Prerequisites: None), 3 credits 3 _____

BIT 4614: Information Security (Prerequisites: One of the following: BIT 3424, BIT 2164, CS 2164, PSCI 2164), 3 credits

CS 3274 Software Reverse Engineering (Prerequisite: (CS 2114, CS 2506) **OR** (ECE 2564, ECE 3514)), 3 credits

FIN 4014: Cyberlaw and Policy (Prerequisites: None), 3 credits

MATH 4175: Cryptography (Prerequisites: see timetable for prerequisite options), 3 credits

MATH 4176: Cryptography (Prerequisite: see timetable for additional prerequisite options), 3 credits

Additional Required Elective Course (3c)

Must choose one additional course from the Networks, Systems, or Interdisciplinary List 3 _____

Seminar 1c

ECE 4944: Cybersecurity Seminar (Prerequisite: ECE 2804 **OR** CS 2505) (**offered Spring semester only**) 1 _____

Total Credits 19

NOTES:

1. The Cybersecurity Minor is restricted to students in the BSEE, BSCPE and BSCS degree programs only.
2. Students majoring in Secure Computing in Computer Science are not eligible to enroll in the Cybersecurity Minor due to course duplication.
3. To declare the Cybersecurity Minor, a student must be in a degree-granting major and have completed one of the following courses: CS 3214 Computer Systems **OR** ECE 3574 Applied Software Engineering.
4. The following substitutions are accepted for the Cybersecurity Minor:

<u>Required Minor Course</u>	<u>Allowed Substitute</u>
CS 4254 (or networking area group requirement)	CS/ECE 5565 Network Arch and Protocols
ECE 4560 OR CS 4264 (one or the other)	CS/ECE 5560 Network Arch and Protocols
CS/ECE 4504	ECE 4530 Hardware-Software Codesign OR CS 3274 Software Reverse Engineering
Interdisciplinary course requirement	PSCI/CS/BIT 4164 Future of Security: Integrative Solutions for Complex Security Systems
Interdisciplinary course requirement	CS 4274 Secure Computing Capstone
One additional course requirement	In addition to a course from the networks, systems, or interdisciplinary groups, ECE 5504 OR CS 5204 may be used

5. It is your responsibility to ensure that you have completed the prerequisites for each course. For prerequisite grade requirements and the most accurate and up-to-date prerequisite information, please refer to the timetable of classes.