

AP Cybersecurity: Course at a Glance



Course Overview

AP® Cybersecurity introduces students to the field and aligns with introductory, college-level cybersecurity coursework. Students explore defense-in-depth strategies and learn to address specific vulnerabilities, attacks, mitigations, and detection measures across a variety of domains, including physical spaces, computer networks, devices, applications, and data.



What Students Can Earn

College Credit and Advanced Placement: A qualifying AP Exam score can earn college credit, advanced placement, or both at participating colleges and universities.

AP Cybersecurity Credential: An employer-endorsed credential earned with a qualifying score on the AP Cybersecurity Exam.



Core Skill Themes (Spiral Throughout All Units)

Analyze Risk: Identify threats, vulnerabilities, and their potential impact on people, organizations, and systems

Mitigate Risk: Design and implement layered defenses; configure and assess security controls

Detect Attacks: Identify indicators of compromise; document threats and recommend solutions



Course Units

Unit 1: Introduction to Security

Foundational concepts: threats, vulnerabilities, risk, and the defender mindset; social engineering and AI-based attacks

Unit 2: Securing Spaces

Physical security controls, access management, surveillance, and defense in depth for physical environments

Unit 3: Securing Networks

Network architecture, firewalls, encryption protocols, VPNs, wireless security, and network-level threat detection

Unit 4: Securing Devices

Endpoint security, malware, patch management, mobile device threats, and device hardening strategies

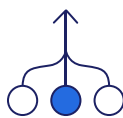
Unit 5: Securing Applications and Data

Application vulnerabilities, data classification, cryptography, PKI, and HTTPS



Ideal Student Profile

- No prior coding or computer science experience is required; designed for broad access
- Students curious about technology, digital safety, problem-solving, or how systems fail
- Students interested in careers in IT, security, engineering, law enforcement, or government
- Career and technical education (CTE) students seeking college credit within their program of study
- Students seeking the benefits of AP, including boosts to their high school GPA
- Students who want to build in-demand skills before entering college or the workforce



Career Pathways

- Information Security Analyst
- Digital Forensic Analyst
- Security Manager
- Compliance Manager
- Network and Computer Systems Administrator
- Computer User Support Specialist
- Loss Prevention Manager

Many of these roles typically require education beyond high school.



Key Partnerships and Standards Alignment

Industry Partners: Developed in partnership with college faculty and industry leaders; industry advisors include Cisco and IBM



Invite students to visit
[cb.org/explore-AP](https://collegeboard.org/explore-AP)
 to tell us they're interested.