CyberSecurity Essentials v3

Certification Exam: ICT CyberSecurity Essentials Certificate Test

The ICT CyberSecurity Essentials course focuses on the fundamentals of personal online security and safety. Students will define cybersecurity challenges and solutions, including Internet and social media safety, cyber-ethics, and copyright issues. Students will also learn about threats to computer systems and ways to secure their computers. This course includes topics especially relevant to students, such as cyberbullying, sexting, online gaming, and risk mitigation for young or new users of online media.

Candidate Profile

The ICT CyberSecurity Essentials v3 certification and courseware serve a wide range of learners seeking practical, industry-relevant skills, including:

Middle School Students
- Grades 5- 8th middle school students.
- Show curiosity about how computers, apps, or games work.
- Show interest in math, science, robotics, or gaming.

High School Students
- Grades 9-12 or recent graduates with basic tech literacy.
- Curious about programming, cybersecurity, or data science.
- Are preparing for workforce readiness or career and technical education (CTE) pathways.

Adults
- Basic computer proficiency.
- Individuals entering computer and mathematical occupations.
- Professionals seeking career advancement, career transition, or technical skill development.

Career Profile

This course aligns with the Department of Labor Standard Occupational Classification for the following:

SOC: 15-0000 Computer and Mathematical Occupations
The Computer and Mathematical Occupations major group includes careers focused on designing, developing, analyzing, securing, and managing information systems, software applications, networks, databases, and data-driven solutions. Professionals in this field apply computer science, mathematics, statistics, and analytical methods to solve complex technological and business problems.

SOC: 15-1212 Information Security Analysts
Plan, implement, upgrade, or monitor security measures to protect computer networks and information. Assess system vulnerabilities for security risks and propose and implement risk mitigation strategies. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May respond to computer security breaches and viruses.

SOC: 15-1253 Software Quality Assurance Analysts and Testers
Develop and execute software tests to identify software problems and their causes. Test system modifications to prepare for implementation. Document software and application defects using a bug tracking system and report defects to software or web developers. Create and maintain databases of known defects. May participate in software design reviews to provide input on functional requirements, operational characteristics, product designs, and schedules.

Topics

Lesson 1: Protecting Your Identity

Points to Ponder
Protect Your Identity and Your Privacy
Cybersafety

Lesson 2: Safety Risks in Online Activities

Points to Ponder
Managing Digital Communication Risks
Managing Cyberbullying Risks
Managing Online Gaming Risks

Lesson 3: Legal and Ethical Issues of Internet Content

Points to Ponder
Understanding Copyright, Fair Use, and Creative Commons
Understanding Your Ethical Responsibility

Lesson 4: Protecting your Device from Security Threats

Points to Ponder
Cybersecurity
Common Security Threats
Protecting Your Devices

