

CYBERSECURITY / NETWORKING

Full Year, Every day

Utah CTE Pathways: Cybersecurity and Information Technology Systems



Instructor: Troy Young

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PROGRAM DESCRIPTION: CTEC's Cybersecurity & Networking program equips high school juniors and seniors with hands-on skills in IT, Linux, networking, and cybersecurity—plus over 10 industry certifications and up to 12 college credits. With nearly 3.5 million cybersecurity jobs projected to go unfilled globally in 2025, this program gives students a head start in one of the fastest-growing fields in tech.

The CTEC Cybersecurity & Networking program is a rigorous, year-long course designed for high school juniors and seniors who are passionate about technology, problem-solving, and digital defense. Students dive deep into the foundations of computer systems, network architecture, Linux administration, and cybersecurity operations—building the skills needed to protect data, troubleshoot systems, and secure networks in today's digital world.

Whether you're interested in ethical hacking, IT support, or programming, this program offers a launchpad into high-demand careers and college pathways.



High School Credit: CTE credit or elective credit: up to 4 credits
Concurrent Enrollment: 9 College Credits. Student is responsible to register and pay for concurrent enrollment classes at UVU. For more information on these classes, see Appendix.

Industry Certifications: TestOut PC Pro, Certiport Certifications

Skills Certification: Utah State Skill Certificate Test(s)

Recommended: Keyboarding and Foundations of Technology, strong technical aptitude and interest in computer science.

COURSE DESCRIPTIONS:

Computer Systems 1: Students will learn necessary competencies for an entry-level IT professional including installing, building, upgrading, repairing, configuring, troubleshooting, optimizing, diagnosing, and performing preventive maintenance of basic personal computer hardware.

Computer Systems 2: Students will expand on the skill gained in Computer Systems 1. They discover and install common operating systems and their purposes. This course also focuses on software troubleshooting and operational procedures.

IT 2600 Network Fundamentals Students will gain knowledge and skills required to implement a defined network architecture with basic network security. Furthermore, they will be able to configure, maintain, and troubleshoot network devices using appropriate network tools and understand the features and purpose of network technologies.

IT 1510 Linux Fundamentals Students will introduce students to the world of open-source operating systems. They will learn essential skills such as navigating the Linux file system, using command-line tools, and managing software packages. By exploring Linux, students are better prepared for careers in IT and cybersecurity.

CYBR 1700 Principles of Cyber Defense and Ethics: In this course students will discover the importance of cybersecurity in information technology. The objective is to understand cyberattacks and the techniques used to take control of an unsecure system.

Cyber Forensics: This course will cover the fundamentals of computer forensics and investigations. Students will understand topics including historical and current computer forensic and investigative security issues, a systematic approach to computer investigations and cyber forensics tools.

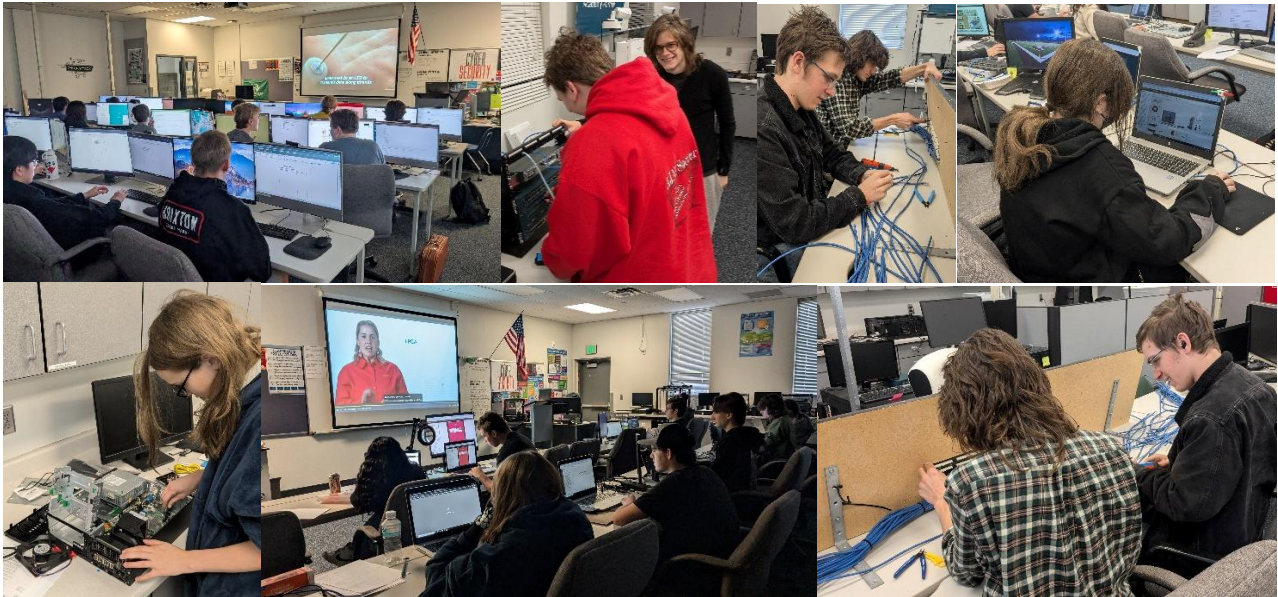
Costs/Fees for the 2026-2027 school year: Pending school board approval.

Career Possibilities:

Computer Forensics Analyst
Security Administrator
Cybercrime Investigator
Security Incident Responder

Cryptanalysts
Malware Analyst
Security Architect
Network Administrator

Service Desk Analyst
Security Auditor
Data Protection Officer
Wireless Network Engineer



"What I loved most about cybersecurity at CTEC was the amazing community—just a bunch of fellow nerds learning together, studying, playing Blookit, and passing certifications. It was fun and really useful. Cybersecurity jobs are growing fast, and this class is the perfect kickstarter." Ollie Weaver, 2025

"One of the best parts of cybersecurity at CTEC was getting to work on personal projects I really cared about. I've always enjoyed tinkering with tech at home, and this program gave me the space and tools to take that further. If you're passionate about cybersecurity, this program helps you turn that passion into real skills." Nathan Young, 2025

"I originally came from the programming course, but I found that cybersecurity taught me more about how computers actually function, and I ended up loving it. This class inspired me to take on summer projects like building a Raspberry Pi network and diving into Linux at home." Ridge Caldwell, 2025

"I chose this course because I enjoy computer tech but not programming. Coming in with no knowledge and learning the basics of computer systems and cybersecurity was surprisingly doable and really useful. The new lab space, 3D printers, and upgraded computers make it even better." Milo Jensen, 2025

"What I appreciated most about cybersecurity at CTEC was earning a wide range of certifications that can help you land jobs across the tech industry. I chose this program because my dad's a programmer, and I wanted to do something similar without diving into solo programming work. Cybersecurity felt like a better fit." Mark Kristensen, 2025

