CYBERSECURITY/NETWORKING Full Year Information Technology Education



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PROGRAM DESCRIPTION: This program provides exciting opportunities for student professionals in the high-demand and challenging world of Cybersecurity and Digital Forensics. It introduces the technologies used in the field such as computer maintenance, basic networking, and cybersecurity awareness. Students will learn how to troubleshoot and repair various hardware, software, and configuration problems. Students will also practice installing basic computer parts, networking components, and apply security concepts. Further topics include identifying security threats, cryptography, hardening networks, and Ethical Hacking with Kali Linux.



High School Credit: CTE credit or elective credit: up to 4 credits
Industry Certifications: MTA Windows Operating System Fundamentals, MTA Network
Fundamentals, MTA Security Fundamentals, MTA Window Server Administration
Fundamentals, TestOut PC Pro, TestOut Network Pro, and TestOut Security
Skills Certification: Utah State Skills Certification Tests
Additional Opportunities: SkillsUSA membership
Recommended: Keyboarding and Foundations of Technology

COURSE DESCRIPTIONS:

Computer Repair Technician 1: Enhance your technological and troubleshooting skills by building, maintaining and repairing the personal computer. Combine targeted computer repair training with industry expertise and certifications.

Networking: Enhance your training by designing and building network systems. This course covers essentials for a network engineer to survive and excel in this rapidly growing industry.

Cybersecurity and Cyber Forensics: Continue adding value for future employers with this course covering core security and forensics technologies. Learn to design and build security systems, how to monitor and prevent security leaks, maintain data and device confidentiality/integrity, and availability.

Costs/Fees for the 2021-2022 school year: Pending school board approval.

Career Possibilities:

PC Help Desk Technician Computer Forensics Investigator Network Administrator Information Security Specialist Cybersecurity Analyst Cyber Threat Intelligence Analyst Field Technician Security Vulnerability Engineer Wireless Networking Technician Gaming PC Designer



I have personally enjoyed learning and doing the ethical hacking labs in this program. I feel the labs give the most hands-on experience and I am more of a hands-on type of person. The TestOut certification modules are enjoyable and informative. I have earned several industry certifications already. Having the resources to do my own personal computer projects in class is nice and lets me learn more in class than what is in the syllabus. James Farnsworth, 2021

My favorite lab in this program was building a computer. Even though I had a PC at home, I was not the one who put it together. My knowledge on computers only went as far as knowing the RAM existed. The program is fun and easy going while being very useful. The teacher has helped me study for the CompTIA Network+ exam, even though it is not in the program curriculum. So far, I have earned six certifications with my favorite ones being the TestOut exams because it emulates a real workplace. Miriya Rossiter, 2021

I was able to participate in the cybersecurity program at CTEC and I enjoyed myself immensely. Mr. Crenshaw is a fantastic teacher who applies what we learn in class to real world events. Every morning we talk about an event or technology that recently happened or that was released, so everything we learn is always relevant. We have done lots of labs and hands on experiments and whenever we want to try something Mr. Crenshaw just asks us what we need him to do in order to accomplish the task. I would recommend this class to any and all students who want to learn more about cybersecurity. Coleman Hone, 2021

I have liked learning about security breaches from our daily Cybersecurity Briefings. My favorite labs have been using Metasploit, a pen-testing framework, to execute basic attacks—it is a tool I wouldn't otherwise have learned how to use. I had the most fun learning about networking hands-on with Cisco routers and switches. I would recommend this class as a great way to get hands-on experience and general knowledge about computers, networking, and cybersecurity! As part of the class, I also earned several IT certifications to get me started in the industry. Kyle Holland, 2021