

Discover INFORMATION TECHNOLOGY

Industry Overview

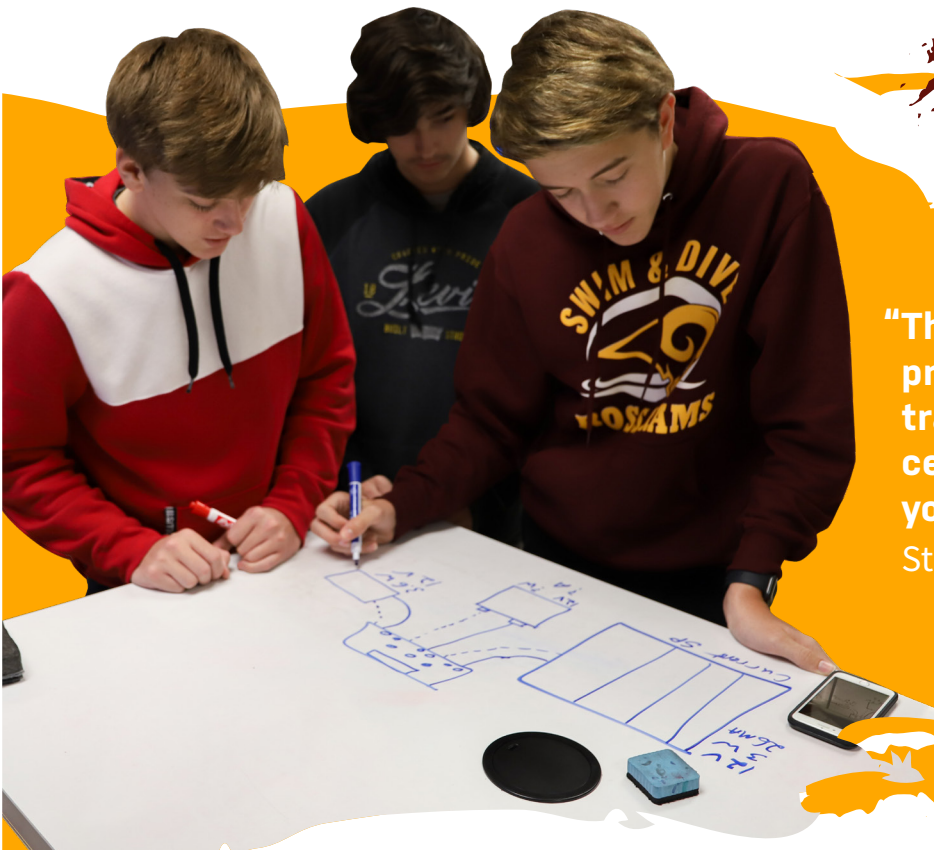
Are you intimidated by computer technology, or do you feel like you have technology skills that can change the world? In either case, the Butler Tech information technology program at Ross High School is for you.

In this Cybersecurity focused program, you will learn everything from introductory Cybersecurity to what it takes to defend your network from intruders in the Cyber Defense course. You could also learn how to test a network's security measures in the Cyber Security Testing course. The information technology program contains courses that will help you prepare for a future working with computer hardware and software, computer networking and cybersecurity.



Coursework

- Computer Hardware
- Cyber Defense and Reinforcement
- Cybersecurity
- Information Technology
- Network Security
- Networking
- Programming



"This is a focused professional program with hands-on training. It pushes you to learn certifications that will help you the rest of your career."
Student, *Information Technology*

Butler Tech Information Technology Course offerings at Ross

Computer Hardware

Students will learn to install, repair, and troubleshoot computer hardware systems. They will perform preventative maintenance practices and learn techniques for maintaining computer hardware security. Communication skills and professionalism in troubleshooting situations will be emphasized.

Cyber Defense and Reinforcement

Students will learn the process of systematic defense for information technology systems. They will apply knowledge and skills required to secure network resources including infrastructure, operating systems, data, and applications. Students will apply the knowledge of disaster recovery and business continuity.

Cybersecurity

Students will learn the components of cybersecurity and the role each plays in preventing, detecting and mitigating vulnerabilities and attacks. Components include the security of the network infrastructure, security of the systems, and the prevention, detection, and mitigation of common vulnerabilities and attacks. Throughout this course, students will examine and implement security safeguards for desktop, network, and application security.

Information Technology

This first course in the IT career field is designed to provide students with a working knowledge of computer concepts and essential skills necessary for work and communication in today's society. Students will learn safety, security, and ethical issues in computing and social networking. Students will also learn about input/output systems, computer hardware and operating systems, and office applications.

Network Security

This course will address securing networks and operating systems. Students will learn to secure network communications, computer hardware, and network software. Topics included are network security theory, cryptography, security architecture, firewalls, VPNs, IP Security, and methods of protection.

Networking

Students will install, configure, and troubleshoot network hardware and peripherals. Students will learn networking by exploring the OSI model, network topologies, and cabling. Students will design simple networks, know how to select physical devices, and be able to configure the equipment. Knowledge and skills relating to the operation and usage of network protocols will be developed.

Programming

In this course, students will learn the basics of building simple interactive applications. Students will learn the basic units of logic: sequence, selection, and loop. Students will apply algorithmic solutions to problem-domain scenarios. Students will gain experience in using commercial and open source languages, programs, and applications.

"I try to teach my students skills for the real-world. I want them to have the training they need to walk directly into a job they love."

Instructor, Information Technology

Discover Information Technology through Butler Tech and pursue a career that's right for you.

Butler Tech connects high school students to career technical education in more ways than ever. Complete your traditional academic courses in your school and enhance your educational experience with career-focused labs and on-the-job training. Each moment in a Butler Tech career technical course is a step toward building your future.



See your guidance counselor for registration information.

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