

Information Technology Fundamentals

Information Technology Fundamentals is a one-credit course that introduces students to the knowledge base and technical skills for information technology careers. Students study the nature of business and demonstrate knowledge of the functions of information systems in business. Emphasis is placed on maintaining a safe working environment and on building interpersonal skills needed for working in the information technology environment. Students demonstrate appropriate knowledge and behaviors regarding legal responsibilities of information technology professionals. They explore a variety of information technology career opportunities and develop a personal career plan to meet career goals and objectives. It is recommended that Business Technology Applications be taken prior to enrollment in this course.

Career and technical student organizations are integral, cocurricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

Computer Basics

Students will:

1. Distinguish between input and output devices, including monitor, keyboard, mouse, and scanner.
2. Utilize mathematics skills to convert between two number systems, including decimal, binary, and hexadecimal.

Hardware Installation

3. Perform computer maintenance and upgrading of computer components and portable devices.
4. Practice basic procedures of installing, configuring, optimizing, and upgrading printers and scanners.

Software Installation

5. Identify fundamentals of using operating systems.
6. Perform basic configuration and optimization by updating and upgrading operating systems.

Troubleshooting and Maintenance

7. Utilize troubleshooting techniques for personal computer components and portable devices.
8. Perform preventive maintenance on personal computer components and portable devices, operating systems, and computer security systems.
9. Identify tools, diagnostic procedures, and troubleshooting techniques for operating systems, printers and scanners, and security.
10. Demonstrate the construction of a computer system, including the installation of hardware and software.
11. Demonstrate configuring, upgrading, and optimizing security.

Career Opportunities

12. Determine career and entrepreneurial opportunities, responsibilities, and educational and credentialing requirements related to the information technology industry.
13. Use communication skills effectively when communicating with customers and colleagues.
14. Exhibit job-related professional behavior, including confidentiality, respect for the customer and customer's property, and adherence to privacy laws.
15. Interpret research data to predict anticipated changes in computer systems.

Network Basics

16. Identify fundamental principles of networks.
17. Demonstrate configuring, optimizing, and upgrading of networks.
18. Identify tools, diagnostic procedures, and troubleshooting techniques for networks.