SYLLABUS

Mr. John Cannady

INFORMATION TECHNOLOGY FUNDAMENTALS

Textbook

None

Instructional Philosophy

Students will be expected to meet all course objectives. Students should demonstrate their understanding through completion of lab work, projects, and activities assigned. Lab activities will require students to apply concepts and troubleshooting techniques taught in class. The skills learn will enable students to become proficient at computer hardware, software, networks, and the Internet.

Program Goals

The Information Technology Fundamentals program will

a. Develop organizational skills
b. Enable students to complete all labs
c. Encourage participation in class discussion
d. Enable students to participate in all lab skills
e. Encourage participation and cooperation in other assigned projects and activities related to the unit being studied

Prerequisite

None

Course Schedule

The Information Technology Fundamentals course is a 1 credit course.

Course Fees/Club Dues

Course Fee: $20

Skills USA Fee: $25

Grade Scale

A = 90 - 100
B = 80 – 89
C = 70 – 79
D = 60 – 69
F = 0 -59

Assessments

1. **Major (65% of Grade)**
    a. Skills
    b. Projects
    c. Major Assessments
    d. End of Chapter/Module
    e. Major Online Assessments
    f. Community and Home Service
    g. Parent Signed Forms/Assessments

2. **Minor (35% of Grade)**
    a. Journals
    b. Homework
    c. Daily Tasks
    d. Notes Check
    e. Online Assignments
    f. End of Chapter Reviews
    g. Open Book Assessments
    h. Contribution in class lesson
    i. Team Development Exercises
    j. Returned Items (Signed Papers)
    k. In or Out-of-Class Assessments

Teacher Credentials

*M.S., Adult Education, Troy University of Montgomery
*B.S., Management of Human Resources, Faulkner University
*A.A.S., Instructional Technology/Military Science, CCAF
*A.A.S., Aerospace Ground Equipment Technology, CCAF
*Professional Educators Certificate: JLC-0034-7927
*CCNA: CSC011079748
*CCAI: 3391181CCNA
*C-Tech Copper Based Systems Instructor: 01-04-C-0601-1
*C-Tech Fiber Based Systems Instructor: 01-04-F-0601-1
*Microsoft Certified Professional: F866-3365
*MTA: Windows Operating System Fundamentals: F866-3366
*MTA: Windows Networking Fundamentals: F866-3367
*PC Pro A+: C923
* Internet and Computing Core (IC3): 21July2004
*Internetworking Level 1 Certification: 347927
*Industrial Maintenance Level 1 Certification: 347927

Essential Questions

- What are the functions of the *kernel*?
- What is the difference between a GUI and a CLI?
- How are Windows Explorer and Computer similar?
- What type of information is shown on the Taskbar?
- Which Windows interface components would you use to switch from one running program to another?
- Which Windows versions include the Sidebar, Aero, and UAC?
- How does an index improve searching on your computer?

Course Description

Students in Grades 9-12 experience significant growth and development as they assume more complex responsibilities such as working and making career choices. They are continuing to develop unique personalities and are making important life decisions. High school students are developing and practicing leadership and interpersonal communication skills in the school and community that facilitate entrance into adulthood. They continue to experience physical and emotional changes as well as to seek opportunities for developing independence and individuality.

Grades 9-12 students have broadened their perspective regarding the importance of existing and developing technologies and have an understanding of the scope of technology in today's world. As students progress through the high school years, they are able to address a variety of problems on a variety of topics in a logical manner. Technology offers students an efficient means by which many types of problems may be solved.

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, co curricular 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.

The content standards in this course are designed around content organizers that emphasize hands-on, practical activities that extend beyond the computer classroom or laboratory. Course content should be integrated into other curricular areas to allow students to reinforce and expand technology competencies. As students become proficient users of computers and other technologies in the classroom, the benefits of using these tools for researching, analyzing, and synthesizing information beyond the classroom become evident. Technology literate students realize that technology tools and resources enhance not only educational endeavors but also personal and professional success as well.

Course Goals

INFORMATION TECHNOLOGY FUNDAMENTALS

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.

Attachment (A)