**I.T. Fundamentals Syllabus-- Fall 2019**

**Course ID: 520005**

**Faulkner Career Technical Center**

**Program Name-Network Systems and Computer Services**

**Teacher:** Mrs. Crystal Dees **Planning Period:** 11:00-11:30

**Email:** **cdees@mcpss.com** **School phone:** (251) 221-5431

**Textbook:** *Managing and Troubleshooting PCs 4th Edition,* Mike Meyers (2012)

**About the Program:** The Network Systems and Computer Services Program identifies core knowledge and professional ethics essential to all technology students/workers who pursue paths in the fields of: computer operations, operating system support, computer hardware maintenance, and basic electronics. Students are introduced to computer technology and prepared for acceptance in post-secondary computer programs and/or employment in the computer industry.

**Course Description and Prerequisite:** 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*. 1 Credit

**Course Goals:**

* Students will be able to:
	+ choose what field they wish to pursue in the computer industry.
	+ support end-user problems while utilizing proper classroom/laboratory equipment and resources.
	+ demonstrate appropriate professional and ethical behavior in the workplace.
	+ imitate employability skills that will promote employment opportunities and career growth.
	+ enter post-secondary computer field fully prepared and/or for employment in the technology field.

**CSTO Goals:** 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. For our program Skills-USA is an integral part of the computer electronics program at Faulkner Career Technical Center. This organization prepares students for employment by promoting competent, aggressive professional leadership. Its goals include: establishing a career objective, developing character, self-confidence, and participating in community service activities.

**Essential Questions:**

* How does a computer access data?
* How does a computer store data?
* What are some common computer hardware problems?

**Fees:** There will be a **$40.00** fee for this semester’s course. (fee includes CTSO dues, instructional

materials/consumables, and 100 pages of printing). I understand money is tight during these hard economic times; therefore, if necessary, the student may pay in installments of their choosing. If the student does not pay these fees he/she may be unable to participate in laboratory exercises and given an alternate assignment. If you are in need of payment assistance please contact Mr. White, the school principal (251-221-5431), for scholarship opportunities. Please make checks payable to Faulkner Career Technical Center.

**Required Supplies:** A 2 inch 3-ring binder (your choice of color) with notebook paper, small hole puncher, 4 function calculator (no graphing calculators allowed), black/blue pen or pencil.

**Attendance Policy:** The key to success in any course or career is regular and timely attendance; therefore, this course will strictly follow Mobile County’s school attendance policy. Any student that exceeds 2 absences in a course the parents will be notified using an SS-1 form by mail. After 4 excused or 5 unexcused absences without a doctor’s note will be referred to the counselor which could lead to a loss of credit for this course.

**Makeup Work:** It is the **student’s responsibility** to obtain the assignment/s he/she missed from the teacher upon returning to class, if not, a zero will be assigned. It is at the teacher’s discretion whether or not a student can makeup work if the absence was unexcused.

**Assessment Procedures**: Students will be assessed using, but not limited to, the following methods: daily assignments, classroom participation, group projects, labs, oral presentation/s, written report/s, quizzes, and major examinations. All written work **MUST** be legible and use proper grammar to receive full credit. Plagiarism/copying another’s work will **NOT** be tolerated in this course. Any student caught turning in such work will receive a grade of **zero**.

**Culminating Product(s):** The guidelines and criteria for evaluation of each project will be discussed and given to the student prior to the start of the project.

* Complete an oral security and industry certification presentation
* Write a report on software licensing
* Complete a scrapbook of computer related events from print sources
* Lab practicals

**Grading Scale:** 90-100 **A**, 80-89 **B**, 70-79 **C**, 60-69 **D**, 0-59.4 **E**

**Grade Determination:** Will be based off of MCPSS grading policy as well as the table below.

|  |  |  |
| --- | --- | --- |
| Evaluation Criteria: | Method of Evaluation: | Percent of Grade: |
| Major Grades: |  | 60% |
|  | * Exams (Final Exam is 20% of grade)
 |
|  | * Lab practicals/performance exams
 |
|  | * Course projects
 |
|  | * Oral and written reports
 |
|  | * News article scrapbook
 |
| Daily Grades: |  |  |
|  | * Participation
 | 40% |
|  | * Quizzes
 |
|  | * Homework
 |
|  | * Classwork
 |
|  | * Group work
 |

**Parent Involvement:** Parents are ALWAYS welcome in my classroom. If you need to reach me for a parent conference; please use the contact information located at the top of this syllabus.

**Industry Certification:** After completing two courses the student will be eligible to take the *CompTIA IT Fundamentals Exam* which is paid for by Mobile County Public Schools. Students **MUST** complete the certification form in order to participate.

**Course Outline\***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Week of** | **ACOS #** | **Topic** | **Culminating Product** | **Duration (mins)** |
| Aug 12 |  | Intro To Program/Safety | Safety Exam | 415 |
| Aug 19 | 1, 2 | Input/Output devices, Binary math | Test/Lab/Worksheet | 415 |
| Aug 26 | 3, 4 | Upgrading computers, installing devices | Lab/Quiz | 415 |
| Sept 3 | 8, 10 | preventive maintenance, and computer construction  | Lab | 415 |
| Sept 9 | 5, 6 | O.S. fundamentals, optimizing O.S. | Lab/Exam 1, Software report | 332 |
| Sept 16 | 7, 9 | troubleshooting techniques, diagnostic procedures  | Lab/Exam 2 | 415 |
| Sept 23 | 11 | Computer security | Oral presentation | 415 |
| Sept 30 | 12, 13, 14, 15, 16, 17, 18 | Network fundamentals, configuring networks, troubleshooting networks Customer and peer communication skills, industry certifications, computer technology research | Lab, Oral presentation, Scrapbook, Final Exam | 332 |
|  |  |  | **Total (mins):** | **3,154** |

\*Subject to change with notice

Parent Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(*Alabama Course of Study: Career and Technical Education)*

IT Fundamentals:

Class Rules

General:

1. Be respectful to your fellow classmates, instructor, and guest speaker/s
2. Bring required materials to class
3. Follow directions the first time they are given
4. Stay out of unauthorized areas (Instructor’s office, storage, lab)
5. Turn in assignments when they are due
6. No food or drink (water is ok, but not in the lab) in the classroom
7. Keep your dear teacher happy ☺

# Computer Electronics: Shop Safety and Best Practices

ACOS Obj (7): Apply safety rules, regulations, and procedures for computer electronics technology.

* Do not spray canned compressed air with the can upside down.
* Eye protection **WILL** be worn at **ALL** times when servicing computers or working with other electronic components.
* Do not touch any internal CPU component without wearing an anti-static wrist band or using an anti-static mat.
* Do not use a standard vacuum to clean inside your computer.
* Do not attempt to clean the inside of a computer monitor.
* Do not leave a computer plugged in while cleaning/servicing.
* Do not leave loose screws, metal, unconnected wires, or plastic inside the computer case, it may cause a short.
* Do not touch an LCD screen with your fingers.
* Do not use an unapproved liquid to clean your LCD screen.
* Clean up the general area surrounding your computer before beginning.
* All tools should be secured before, during, and after use.
* If you see/smell smoke or detect a burning smell unplug the equipment immediately and inform the instructor.
* Remove hand jewelry, precious metals are great conductors of electricity.
* Avoid capacitors, they contain retain a charge even when the computer is shut down and unplugged.
* Never Service a non-serviceable component (i.e power supplies, CRT monitors).
* Watch for sharp edges especially on case edges and motherboards.
* When making repairs or upgrades, make sure that the component is compatible with your other system components.
* Do not force new parts into place.
* Wash your hands after servicing.