

**I. COURSE DESCRIPTION:**

A. Department Information:

Department: Computer Information Technology  
Division: Business & Information Technology  
Course ID: CIT 080  
Course Title: Inside the Personal Computer  
Units: 3  
Lecture: 3 hours  
Laboratory: None  
Prerequisite: None

B. Catalog and Schedule Descriptions:

An introduction to the personal computers at the machine level. Topics include the system board, keyboard, floppy and hard disk drives, interface cards, monitors, printers, machine organization, and design conventions. (Formerly CSYS230)

**II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: One**

**III. EXPECTED OUTCOMES FOR STUDENTS**

Upon successful completion of the course, the student should be able to:

- A. understand what is inside a PC and why it is needed.
- B. describe the essential technologies of a personal computer.
- C. analyze their PC and operating system, and be able to checkout the hardware.
- D. describe the special hardware needs for intense multimedia.
- E. diagnose, troubleshoot, repair, update, and optimize a PC.

**IV. CONTENT**

- A. How computers work: an overview
- B. How software and hardware work together
- C. The system board
- D. Introduction to hard drives
  - 1. Hard drive installation and support
  - 2. Floppy drives and other essential devices
- E. Troubleshooting fundamentals
  - 1. Customizing a PC system with peripheral equipment
  - 2. Understanding and managing memory
  - 3. Electricity and power supplies
- F. Supporting a windows environment
  - 1. Understanding and supporting NT workstations
  - 2. Computer, video and multimedia devices
  - 3. Networking fundamentals

**V. METHODS OF INSTRUCTION:**

- A. Lecture
- B. Discussion

**VI. TYPICAL ASSIGNMENTS:**

- A. List the essential technologies of a personal computer.
- B. With another student, diagnose the CPU problem and list the steps to repair.
- C. Write a one page paper on the fundamentals of networking computers.

**VII. EVALUATION(S)**

- A. Methods of Evaluations
  - 1. Short Essay
    - a. Why is it important to describe the actions taken to solve a problem?
    - b. List and describe the fundamentals of troubleshooting
  - 2. Fill-in
    - a. When a support group attempts to prevent problems, it is said to be in \_\_\_\_\_ mode.
    - b. The process of finding the cause of a problem is called \_\_\_\_\_.
- B. Frequency of Evaluation.
  - 1. Six to eight chapter tests
  - 2. Midterm
  - 3. Final examination

**VIII. TYPICAL TEXT(S)**

Andrews, Jean. Enhanced A+ Guide to Managing and Maintaining Your PC. Cambridge, MA: Course Technology Publisher, 2002  
Norton, Peter. Inside the PC. Woodland Hills, CA: Glencoe/McGraw-Hill, 2001  
Andrews, Jean. Lab Manual for A+ Guide to Managing & Maintaining Your PC, Fourth Edition. Boston, MA: Thampson Learning, 2003.

**IX. OTHER SUPPLIES REQUIRED OF STUDENTS: None.**