SYLLABUS

DIVISION: Business and Engineering Technology   **REVISED:** Fall 2012

CURRICULA IN WHICH COURSE IS TAUGHT:IST curricular or elective

COURSE NUMBER AND TITLE: ITE 221 – PC Hardware & OS Architecture

CREDIT HOURS: 4 **HOURS/WK LEC:** 2 **HOURS/WK LAB:** 2 **LEC/LAB COMB:** 4

I.   CATALOG DESCRIPTION: Covers computer processors, operating systems, internal functions, peripheral devices, computer organization, memory management, instruction/data formats, and basic OSarchitecture.

II.   RELATIONSHIP OF THE COURSE TO CURRICULA OBJECTIVES:
- Gain a working knowledge of representative commercial software packages, including operating systems, Internet and e-mail, word processing, spreadsheets, databases andpresentations
- Acquire an understanding of microcomputers
- Address troubleshooting problems effectively and efficiently
- Manage operations and facilities
- Give end user support in related areas of software and hardware
- Apply logic and reasoning to develop computer solutions to stated problems or specifications as related to the business environment
- Discuss the functions of a microcomputer operating system as it relates to the architecture
- Discuss the functions of a microcomputer operating system as it relates to applications software

III.   REQUIRED BACKGROUND: Keyboarding skills recommended. Prerequisite ITE 115 Introduction to Computer Applications and Concepts or ITE 116 Basic Computer Literacy, or permission of the instructor is required. Basic experience in Windows operating system is assumed.

IV.   COURSE CONTENT:
- Computer concepts
- Operating systems – past to present
- User needs assessment
- System upgrades
- Operating systems – non windows based
- Operating system and its relationship with application software
- Basic network servers
- Managing files and folders
- System security
- Other OS for PC's
- System and file backup plans
- File extensions associated with applications

V.   THE FOLLOWING GENERAL EDUCATION OBJECTIVES WILL BE ADDRESSED IN THIS COURSE.

. ___X___Communications	___X___Computational and Computer Skills
___X___Learning Skills	___X___Understanding Culture and Society
___X___Critical Thinking	___X___Understanding Science and Technology
_____Wellness	___X___Interpersonal Skills and Human Relations

VI.   **LEARNER OUTCOMES**   **VII.**
EVALUATION

Learner Outcomes	Evaluation
Computer Storage • Use operating system commands • Various booting techniques • Formatting storage media • Naming, copying, deleting folders & files	Lab exercises Written test Code 5 DOS commands with options Demonstrate cold and warm booting Code format command for a hard disk Create course folder
Folders and files • Display folder contents in various views • Develop folders and subfolders using naming conventions for the OS	Lab exercises In class assignments Written test Demonstrate folder contents and details in Windows 7 Add 3 subfolders to course folder
DOS Commands • Demonstrate internal and external commands • Code commands using wildcards • List a series of commands in the correct sequence to handle file management/storage	Lab exercises In class assignments Written test List 5 external DOS commands Use wild card to list files
Backup and Recovery • Explain the steps to backup files & folders • Identify critical files by drive, type & extension • Identify how the backup procedure captures files based on attributes • List the steps to restore a folder, file and drive	Lab exercises In class assignments Written test List steps to a backup of the hard disk Identify system files Delete a folder and restore it using USB
Copying files • Use the correct icons or commands to copy source files to various destinations & media • Verify the accuracy of a copy command • Change file attributes from a copy operation	Lab exercises In class assignments Written test Include verify option in a copy operation Use control panel to change file attribute to +R
Review other Operating Systems • Discuss the Unix, Firefox and OS2 OS • Access and display ASCII files • Install an OS to a microcomputer or laptop	In class presentation/project Written test Code 3 Linux commands Display contents in ASCII