

# IT 162 : Upgrading and Maintaining Your PC

## **Credits** 5

Hands-on experience in building and maintaining a PC. Covers topics from the A+ essentials exam. Each student will build at least three computers and adjust hardware and software for best performance. Each student will load a variety of operating systems and applications during the class. This class may include students from multiple sections.

## **Course Outcomes**

1. Explain the roles of PC technician including protection, safety, human relations.
2. Describe and demonstrate installation of system components and Peripheral devices.
3. Describe and understand storage devices and managing RAID arrays and optimizing disk performance.
4. Describe the network components and demonstrate network addressing and protocols.
5. Explain how to select, install, configure and manage printers, and describe printer languages.
6. Describe portable computing devices and how they work.
7. Explain and show how to update and protect a system, manage virtual memory, system errors and system recovery.
8. Explain the elements of pre-installation, installation and post installation of the Windows Operating Systems.
9. Describe the location of system files, file extensions and file attributes, and the commands to manage files. Configure NTFS permissions, change file ownership, share a file, and work with offline files.
10. Demonstrate the basics of securing a computer system including BIOS security, encryption, configuring firewalls, etc.