**Tech Support 110**

**J. O’Toole & D. Clarke**

Computers and digital devices are in use everywhere today - for work, education and entertainment. This course will help you learn about the technical side of computers, such as operating system installation and configuration, troubleshooting and networking. You'll learn about the parts of a computer such as peripherals and motherboards, and how to safely work with computers. In addition to learning about PCs, this course will help improve your employability skills.

**Unit 1 – History of Computers**

Students will demonstrate a basic understanding of the history of computers, including:

* Abacus
* Napier's Bones
* Slide Rule
* Calculating Clock
* Pascaline
* Analytical Engine
* Important People

**Unit 2 - Safety**

Students will demonstrate the appropriate knowledge, skills and attitudes with respect to safety in working with computers.

* Potential health hazards when working with computer equipment.
* Precautions to take to prevent injuries.
* Steps and techniques for preventing ESD damage to computer equipment.
* Proper grounding of computer equipment.
* Electromagnetic interference (EMI)

**Unit 3 – Hardware Components & Tools**

Students will demonstrate an understanding of PC hardware components and tools.

* Binary System
* Basic PC computer terms
* Basic PC Tool Kit
* System Board (Motherboard) and Buses
* Microprocessors (CPUs)
* Memory
* Disk Drives
* Power Supplies
* Input/Output Devices
* Peripherals
* Network Cabling
* Computer Disassembly & Reassembly

**Unit 4 – Operating Systems**

Students will demonstrate an understanding current operating systems: Windows XP and Windows 7

* Describe the hardware compatibility and minimum requirements for installing Windows Windows XP (Professional).
* Choose various Operating System installation options (partition and format drives)
* Perform successful installations of Windows XP and Windows 7.
* Install additional components for Windows XP and Windows 7.
* Identify procedures and utilities to optimize Windows XP and Windows 7.
* Change Access controls to files and folders.
* Discuss Permissions to files and folders.
* Describe interfaces of Windows XP such as Windows Explorer, My Computer, Control Panel, Command Prompt, Task Bar, Systray and the Start Menu,

**Unit 5 – Networking**

Students will demonstrate an understanding of basic networking.

* Explain what a local area network is.
* Identify the components of a network.
* Identify the types of networks.
* Explain the basics of setting up a home network.
* Setup of Wireless Router
* WPA and WEP security

**Unit 6 – The Internet**

Students will demonstrate the knowledge, skills and attitudes necessary to use the Internet.

* Define the Internet.
* Explain the history of the Internet.
* Describe who is responsible for the Internet.
* Show the capabilities of the Internet.
* Connect to the Internet.
* Demonstrate security on the Internet
* Web 2.0

**Evaluation**

Assignments - 45%

Quizzes - 20%

Class Mark - 15%

Final Exam - 20%