

Widelink Technologies

TRAINING COURSE OUTLINE

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Course Title:	Information Technologies Fundamentals		
Course Prefix & No.: LNK101	LEC:	LAB:	Credit Hours:

COURSE DESCRIPTION:

This course is an overview of the Information Technology (IT) professional field. This is a fantastic place to start in your career because it introduces you to basic IT knowledge and abilities, which can help you assess whether you have what it takes to work in IT. This course is specifically created for students who want to work in top IT professions but struggle to grasp fundamental ideas. This course is also designed for students who wish to take their time and work their way up the IT professional ladder. This training would include both virtual and hands-on labs to assist candidates feel more confident about their future certifications.

COURSE PREREQUISITE (S):

Positive Attitude.

RATIONALE:

This course is intended to provide a solid foundation for all individuals pursuing employment in the IT industry. Emphasis will be placed on the networking and basic cloud concepts and will prepare students to sit for the CompTIA exams.

REQUIRED TEXTBOOK (S) and/or MATERIALS:

Title: Complete A+ Guide To IT Hardware And Software
Edition: Eight
Author: Cheryl A. Schmidt

Title: CompTIA Network +
Edition: Current
Author: Emmett Dulaney

Title: CompTIA Security +
Edition: Current
Author: Darril Gibson

TOPICAL UNIT OUTLINE/UNIT OBJECTIVES:

Upon completion of this course, the student will have knowledge in:

Unit I. Introduction to the World of IT

- Qualities a technician should have
- Basic skills needed to function in the Windows environment and in the technical world
- Important computer parts
- Basic computer terms
- The purposes of various computer ports
- What to do if you don't have a particular port
- What types of devices connect to specific ports
- Different types of connectors and cables
- Basic storage terms
- About PATA, SATA, SSD, and SSHD technologies
- How to install and configure storage devices, including RAID
- How to fix storage device problems
- How to keep a hard drive healthy
- How to create and troubleshoot a RAID
- How to create and use Windows Storage Spaces
- Effective phone communication
- The components best suited for a particular computing environment
- How to design for specific computer subsystems, such as the video or storage subsystem
- How to perform basic troubleshooting procedures
- How BIOS/UEFI controls the boot sequence and how that helps when troubleshooting

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- The purpose of POST error codes
- Other Internet connectivity options, such as satellite, cable,
- DSL, fiber, WiMAX and line-of-sight wireless Internet service, as well as cellular
- To configure a browser and other basic issues related to a browser
- How cloud computing is used for personal and corporate purposes
- Terms associated with cloud computing
- The basics of virtualization, including terms and features associated with it
- To identify the basic features and functions of an operating system
- To identify various types of operating systems: desktop,
- workstation, and mobile device operating systems
- To identify end-of-life, compatibility, and updating operating system concerns
- To identify specific corporate needs
- To identify and use common desktop icons in Windows 7/8/10/11
- To manage files and folders in Windows
- To work with the Windows registry
- To create backups and to create a system image
- Techniques to stay current in the field
- To distinguish between the Windows 7, 8,10,11, and server operating systems
- To install, configure, and troubleshoot Windows 7, 8, 8.1,10,11, and Windows Server
- To install hardware and software in the Windows environment
- To use various tools and features, such as System Restore, driver rollback, and WinRE
- To use the Control Panel utilities
- To implement the Windows boot process and troubleshoot boot problems
- To use the Computer Management console, Task Manager, and Event Viewer

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- How to avoid burnout in the IT field

Unit II. Networking / LABS

- Wired and Wireless Network Topologies
- Models, Ports, Protocols, and Network Services
- Addressing, Routing, and Switching
- Network Implementations
- Cabling Solutions and Issues
- Wireless Solutions and Issues
- Cloud Computing Concepts and Options
- Network Security
- Network Troubleshooting

Unit III. Security

- Mastering Security Basics
- Exploring Network Technologies and Tools
- Comparing Threats, Vulnerabilities, and Common Attacks
- Using Risk Management Tools
- Implementing Controls to Protect Assets
- Understanding Cryptography and PKI
- Implementing Policies to Mitigate Risks