

Virginia Western Community College

ITN 106

Microcomputer Operating Systems

Prerequisites

None

VCCS Course Description

Teaches use of operating system utilities and multiple-level directory structures, creation of batch files, and configuration of microcomputer environments. May include a study of graphical user interfaces.

Semester Credits: 3

Lecture Hours: 3

Required Materials

Textbook

CompTIA A+ Guide to IT Technical Support – MindTap by Jean Andrews, Edition: 11th, Cengage, ISBN13: 8220127941983

Other Required Materials:

None

COURSE OUTCOMES

- Identify various Operating Systems currently on the market for PCs
- Install Operating Systems in various configurations
- Identify and install/replace OS components
- Select the appropriate installation type and components
- Identify conflicts and suggest resolutions for OS components and applications
- Install, upgrade, replace, and remove various drivers
- Select and install applications
- Install and configure basic networking
- Setup preventive maintenance procedures
- Identify and correct computer software problems

Note to Instructors

This class covers on of the exams required for the CompTIA A+ certification

TOPICAL DESCRIPTIONS

- Operating Systems, Drivers, Applications, Networking, Antivirus Programs, Troubleshooting
 - Identify Operating Systems on the market
 - Define drivers, their use, and configuration options
 - Define applications, their categories, installation and configuration requirements
 - Define basic networking terminology
 - Define viruses and virus prevention
 - Identify OS and application problems and recommend solutions
- OS components
 - Define core components of an OS
 - Understand the graphical shells on the market
 - Identify command-line shells on the market
 - Add and remove OS components
- Application compatibility
 - Understand application compatibility issues depending on the application and the designated OS, application version, and OS version
 - Work with legacy applications
- Driver compatibility
 - Pick proper driver based on the OS type and version as well as the device type and version
 - Upgrade and downgrade drivers
 - Disable drivers
 - Remove drivers
 - Configure drivers
- Role of BIOS/CMOS alongside drivers
 - Understand CMOS and BIOS
 - Upgrade the BIOS
 - Troubleshoot the BIOS
 - Configure the CMOS and the BIOS
- Diagnosing software problems and suggesting solutions
 - Locate application problems and suggest solutions
 - Troubleshoot legacy applications
 - Troubleshoot application compatibility issues
- OS updates, patches, and service packs
 - Understand updates, patches, and service packs
 - Learn when and how to update an OS or an application
- Overview of networking with emphasis on TCP/IP
 - Identify and configure basic networking with today's OS
 - Be comfortable with basic networking terminology
- System backup and restoration
 - Backup data

- Restore data
 - Backup an OS
 - Restore and OS
- Data protection
 - Securing data against tampering and theft
- Automating system tasks using various Operating System components and applications
 - Learn to use automation tools to speed up day to day jobs and reduce errors
 - Identify built-in and third party automation tools for various OS and applications
- Securing an OS
 - Identify security level of various OS on the market
 - Understand basic OS security
- Preventing and responding to virus threats
 - Identify virus categories
 - Identify antivirus software on the market
 - Identify proper application of antivirus software

[TITLE IX STATEMENT](#)

[ADA STATEMENT](#)

