

NASSAU BOCES - ADULT EVENING PROGRAM
Joseph M. Barry Career & Technical Education Center
1196 Prospect Ave.
Westbury, NY 11590

COURSE OUTLINE

Course Name: **Computer Repair II**
Weeks: 10
Sessions: 20
Hours: 60
Days/Time: Tue/Thu, 7-10 pm
Instructor: Robert Cheeseman
Required Textbook: COMP TIA A+ Complete Study Guide: Exams (Essentials) and Practical Applications
ISBN: 9780470486481
Prerequisites: Computer Repair I
Adult evening Office: (516) 622-6950

Course Overview:

This course will expand and build on the elements of basic electronics and personal computer hardware repair as covered in Computer Repair I. In-depth topics include: preventative maintenance, system upgrades and improvement, diagnostics, CD-ROM technology, network theory, basics and continuation of digital electronics.

Computer Technology Certificate: Requires Computer Repair I and Computer Repair II for a total of 120 hours. Upon completing the certificate program the student will have obtained sufficient operating system and product knowledge to sit for the nationally-recognized A+ Certification exam (Student is responsible for arrangements and exam fee).

Course Topics

Troubleshooting in a DOS Environment
The following are known DOS issues:
WINDOWS 3.x
Windows 3.x Features
Minimum Requirements for Running Windows 3.x
Installing and Configuring Windows 3.x
Windows Setup
Windows 3.x Operating System Files
Windows 3.x Configuration
Control Panel
Windows Setup
Windows Initialization Files

Configuring the SYSTEM.INI File
Configuring the WIN.INI File
Configuring the CONTROL.INI File
Configuring the PROGMAN.INI File
Using Sysedit
Configuring Virtual Memory

Virtual Memory Manager
Temporary Swap File
Permanent Swap File
Virtual Memory Sizing
Swap File Settings
IMPROVING HARD DRIVE SPEED
SMARTDR VEZE
Vcache
Temp Files
Running DOS Applications from Windows

WINDOWS 9x REGISTRY

Why the Change in Windows 9x?
Accessing the Registry
Editing the Registry
Regedit's Dual Purpose
Using Regedit to Modify the Registry
BACKING UP THE REGISTRY
 Microsoft Configuration Backup (CFGBACK.EXE)
CFGBACK.EXE Limitations:
Emergency Recovery Utility
ERU.EXE Limitations:
Using .REG Files
Additional Restore Techniques
Registry Restored Still Having Windows Problems
Last Resort before Reloading Windows

DRIVERS AND WINDOWS 9x

Virtual Device Drivers (VxD) vs. Real-Mode Drivers
Plug and Play
Device Manage

ADDING NEW HARDWARE

Settings for PIF Files
SUMMARY
KEYWORDS ExERCISE
Review QUESTIONS

WORKING IN A GUI ENVIRONMENT

A NEW GENERATION OF OPERATING System
WINDOWS 9x AND FILES
 32-Bit VF A T
Long Filenames
 The New CONFIG.SYS and *.INI..
Windows 9x Enhancements
Advantages of Windows 9x

INSTALLING AND CONFIGURING WINDOWS 95

Windows 95 Hardware Requirements

Minimum Requirements
What You Really Need
Additional Hardware
How Much RAM Is Enough?
Upgrading from Windows 3.x (Windows 95 Version A)

Windows 9x Configuration

Network

ODBC

Passwords

Printers

Regional Settings

Sounds

System

Users

SUMMARY

REVIEW QUESTIONS

MANAGING FILES AND DISKS IN WINDOWS 9X.

MANAGING FILES

Hierarchical Storage

MANAGING FILES IN WINDOWS

MICROSOFT EXPWRER

My COMPUTER

MANAGING FILES WITH EXPWRER

Displaying File Extensions

Sorting Files and Folders

Moving Objects Within Explorer

Properties

Searching for Files

The Windows Taskbar

The Recycle Bin

Folder Options

Active Desktop

MANAGING DISKS

Disk Maintenance

Formatting a Floppy Disk

Copying a Floppy

Viewing Disk Properties

Partitioning a Disk in Windows 9x

SUMMARY

REVIEW QUESTIONS

TROUBLESHOOTING WINDOWS 9X

Limitations OF WINDOWS 9X.

The System Monitor
RESOURCE METER
DOS APPLICATION incompatibilities
Wrong DOS Version
Other DOS Workarounds

WINDOWS 98 SYSTEM TOOLS

Backup
Clipboard Viewer
Compression Agent
Disk Cleanup
Disk Defragmenter
Drive Converter
Drive Space
Maintenance Wizard
Net Watcher
Resource Meter
ScanDisk
Scheduled Tasks
Character Map

Welcome to Windows

PRJNIIING PROBLEMS
Viruses
SUMMARY
KEYWORDS Excises
REVIEW QUESTIONS

WINDOWS NT

NETWORK OPERATING SYSTEMS

Server/Client Software.

WINDOWS NT - THE BEGINNING

Windows for Workgroups (Windows 3.11).
Warp Connect
Windows NT
Windows 2000

MICROSOFT WINDOWS NT NETWORK OPERATING System

WINDOWS NT FILE SERVICES

Windows NT Security
Local Security Authority (LSA)
Security Account Manager (SAM)
Security Reference Monitor

UPGRADING TO WINDOWS NT

Windows 3x
Windows 9x

OS/2
Installing Service Packs
UNINSTALLING WINDOWS NT
Windows NT Boot Process
Boot Files
Boot Process
NT Startup Disk.
Common Boot Errors
File Management in Windows NT.
Disk Management in Windows NT.
Configuring Windows NT

REGISTRY

System Policy Editor

TROUBLESHOOTING WINDOWS NT

System Properties

Administrative Tools

Backup

Disk Administrator

Event Viewer

License Manager (Server only)

Migration Tool for Netware

Network Client Administrator (Server only)

Performance Monitor

Remote Access Admin

Server Manager (Server only)

User Manager (Workstation only)

System Policy Editor (Server only)

User Manager for Domains (Server only)

Windows NT Diagnostics

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SUMMARY

KEYWORDS Exercise

REVIEW QUESTIONS

WINDOWS 2000

WINDOOWS 2000 - THE BEGINNING

Print Servers

Interoperability

Applications and Windows 2000

Windows 2000 Minimum Requirements

Preparing to Install - Hardware

Preparing to Install- Make a Plan

Upgrading from Windows 9x or NT.

Installing from a C-ROM.

INSTALLING FROM A NETWORK

WINDOWS 2000 Boot PROCESS
2000 Boot Disk
Common Boot Errors
Windows 2000 Administrative Tools
Microsoft Management Console
Component Services
Computer Management
Data Sources (ODBC)
Event Viewer
Power Options
System Tools
Backup
Character Map
Disk Cleanup
Disk Defragmenter
Getting Started.
Scheduled Tasks.
System Information
Event Viewer
Performance
Services ..
Telnet Server Administration
Disk Management in Windows 2000
Configuring Windows 2000
Troubleshooting Windows 2000
Stop Messages
Device Management
Event Viewer
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SUMMARY
REVIEW QUESTIONS

NETWORKS

NETWORK OPERATING Systems

Peer-to-Peer NOS

CLIENT SERVER NOS

Server Software
Sharing Files and Resources in Windows 9x
Network Neighborhood
Sharing Folders

NETWORK COMMUNICATION STANDARDS

OSI Model
IEEE 802 Standards
Networking Protocols
Protocol Binding
Naming Systems
Dial-up Networking

Network Utilities
Internetworking
World Wide Web (WWW)
Web Browsers
Internet Service Providers
Email
SUMMARY
KEYWORDS Exercise

REVIEW QUESTIONS AND Final Exam