

HP IT Essentials II – Network Operating Systems
High School Course Outline

COURSE OUTLINE

COURSE SCHEDULE (BLOCK SCHEDULE)

| Week (5 – 84 min meetings per week) | Topic(s) | Reading *Reading assignments are to be completed before class | Labs and Worksheets (WS) *WS are assigned as homework and are due at the end of the week they are assigned | Exams |
|--|--|---|--|---------------|
| 1 | Intro to the Cisco Program & account creation (if needed) 1.1 OS Basics 1.2 MS Windows 1.3 UNIX and Linux on the Desktop 1.4 Network Operating Systems Overview | Module 1: Operating System Fundamentals | 1.1.6 Operating System Basics (WS) 1.2.8 Microsoft Windows Basics (WS) | Module 1 Exam |
| 2 | 2.1 Benefits of Networking 2.2 Types of Networks 2.3 Networking Standards 2.4 Networking Protocols -Protocol Suites -TCP/IP -IPX/SPX -AppleTalk 2.5 LAN Architectures -Ethernet -Token Ring -FDDI | Module 2: Introduction to Networking | 2.2.5 Types of Networks (WS) 2.3.2 The OSI Reference Model (WS) 2.4.4 Network Protocols (WS) | Module 2 Exam |
| 3 | 3.1 Configuring a NIC 3.2 Topologies 3.3 Media Types 3.4 Devices 3.5 Connection to the Internet (WANs) | Module 3: Physical Components of a Network | 3.2.7 Network Topologies (WS) 3.3.3 Twisted Pair Cabling (WS) 3.3.5 Physical Media Types (WS) 3.4.3 Network Devices (WS) | Module 3 Exam |
| 4 | 4.1 History of TCP/IP 4.2 IP Addressing 4.3 Name Resolution 4.4 TCP/IP Protocols - ARP, ICMP, TCP, UDP, DHCP, HTTP, FTP, Telnet, SMTP, POP4, IMAP | Module 4: TCP/IP Networking | 4.1.2 The TCP/IP Network Model (WS) 4.2.2 IPv4 Addressing Overview (WS) 4.2.8 Subnetting (WS) | Module 4 Exam |
| 5 | 5.1 Network Services 5.2 Remote Administration 5.3 Directory Services 5.4 Other NOS Services | Module 5: Overview of Network Services | 5.3.5 Configuring Linux as a NIS Client 5.1.1 Network/NOS Services (WS) 5.3.3 Windows 2000 Active Directory (WS) 5.3.4 The Novell NDS (WS) | Module 5 Exam |
| 6 | 6.1 Characteristics of a NOS 6.2 Windows NT/2000 6.3 Linux 6.4 Determining Software for a Linux NOS | Module 6: Introduction to NOSs | 6.1.6 Characteristics of a Network Operating System (WS) 6.2.4 Windows NT/2000 (WS) 6.3.4 Linux (WS) | Module 6 Exam |
| 7 | 7.1 Preparing for the Installation 7.2 The Installation Process 7.3 The Boot Process 7.4 Troubleshooting NOS Installation | Module 7: Installation and the Boot Process | 7.1.7 Using Device Manager in Windows 2000 Server 7.1.8 Using the HCL 7.1.3 Planning the Installation (WS) 7.1.4 Server Components (WS) 7.1.5 Hardware Requirements (WS) 7.2.6 Adding Swap File Space in a Linux System | Module 7 Exam |

This outline is a SAMPLE only. It is not intended to be used in a particular school or district

HP IT Essentials II – Network Operating Systems
High School Course Outline

| | | | | |
|----|--|--|--|-------------------|
| | | | 7.1.8 File System (WS) 7.3.5.1 The Boot Process (WS) 7.3.5.2 Linux Boot Process (WS) | |
| 8 | 8.1 Installation 8.2 Admin/User Interface 8.3 User Accounts | Module 8: Windows 2000 Professional | 8.1.1 Installation Demonstration of Windows 2000 8.1.2 Configuring an IP Address and Default Gateway in Windows 2000 8.2.1 Logging on to Windows 2000 8.2.2 Using the Windows 2000 GUI 8.2.3 Using the Windows 2000 CLI 8.2.4 Navigate the Windows 2000 File System with "Windows Explorer" and "My Computer" 8.3.1 Adding Users in Windows 2000 8.3.2 Managing User Accounts in Windows 2000 | |
| 9 | 8.4 Managing the File System 8.5 Services | | 8.4.1 Creating Files and Directories Using Windows 2000 8.4.2 Creating Groups in Windows 2000 8.4.3 Assigning Permissions in Windows 2000 8.5.1 Configuring HTTP Services on Windows 2000 8.5.2 Configuring FTP Services on Windows 2000 8.5.3 Configuring Telnet on Windows 2000 8.5.6 Writing a Script in Windows 2000 | Module 8 Exam |
| 10 | 9.1 Pre-Installation Tasks 9.2 Installation and Configuring Linux 9.3 X Server 9.4 Post-Installation Configuration Tasks | Module 9: Linux Installation Procedures | 9.2.1 Installation of Linux 9.2.3 Configuring Network Settings 9.3.3 Configuring X Server 9.4.1 Post-Installation of Applications and Programs | Module 9 Exam |
| 11 | 10.1 User Interface Administration 10.2 User Accounts and Group Accounts 10.3 Files Systems and Services Management Documenting a Linux System Config | Module 10: Linux | 10.1.1 Logging into Linux 10.1.2 Using the Linux GUI (X Window) 10.1.3 The CLI Interface 10.1.4 The Linux bash and C Shells 10.1.4 The Linux Shells (WS) 10.1.5 The vi Editor (WS) 10.1.5 Using the Linux vi Editor 10.2.2 Adding Users in Linux 10.2.4 Creating Groups in Linux 10.3.1 Creating Directories in Linux 10.3.5 Managing Runlevels | |
| 12 | 10.4 Daemons | | 10.4.3 HTTP Apache Web Server 10.4.4 Configuring FTP Services in Linux 10.4.5 Configuring Telnet in Linux 10.4.6 Creating a Samba Server 10.4.10 Writing a Script File in Linux | Module 10 Exam |
| 13 | 11.1 Backups 11.2 Drive Mapping 11.3 Partition and Process Management | Module 11: Advanced NOS Administration | 11.1.5.1 Backing up With Windows 2000 11.1.5.2 Backing up with Linux 11.1.1 Overview of Backup Methods (WS) 11.1.3 Types of Backup Hardware (WS) 11.5.2 Bottlenecks (WS) 11.5.3 Baseline (WS) 11.5.10 SNMP (WS) | |

HP IT Essentials II – Network Operating Systems
High School Course Outline

| | | | | |
|----|---|--|--|---|
| 14 | 11.4 Monitoring Resources 11.5 Analyzing & Optimizing N/work Performance | | 11.4.5 Checking Resource Usage on Windows 2000 11.4.6 Checking Resource Usage on Linux 11.5.5 Network Monitor 11.5.9 Installing SNMP 11.5.10 Configuring SNMP Security and Traps | Module 11 Exam |
| 15 | 12.1 Hardware Terms, Concepts & Components 12.2 Hardware Installation, Config & Maintenance 12.3 Checking and Confirming Hardware Configuration Diagnosing and Troubleshooting Devices Laptop and Mobil Devices 12.4 Computer Software for Preventative Maintenance Preventive Maintenance and Power Issues | Module 12: Installing and Maintaining Hardware in a Linux Environment | | Module 12 Exam |
| 16 | 13.1 Identifying & Locating Symptoms & Problems 13.2 LILO Boot Errors 13.3 Recognizing Common Errors 13.4 Troubleshooting Network Problems 13.4 Disaster Recovery | Module 13: Troubleshooting the Operating System | 13.4.2 Using TCP/IP Utilities (WS) 13.4.4 Windows 2000 Diagnostic Tools (WS) 13.5.5 Redundancy (WS) 13.5.6 Hot Swapping (WS) | Module 13 Exam |
| 17 | 14.1 Developing a Network Security Policy 14.2 Threats to Network Security 14.3 Implementing Security Measures 14.4 Applying Patches & Upgrades 14.5 Firewalls | Module 14: Network Security | 14.1.9 Anti-Theft Devices for Hardware (WS) 14.2.6 Threats to Network Security (WS) 14.3.5 Implementing Security Measures (WS) 14.1.8 Security Checklist 14.4.3 Windows Update | Module 14 Exam |
| 18 | Course review Finish all exams Final Exam Prep Cisco Final Exam | | Review & finish all labs | 1-Online Final Exam 2-Practical Final Exam |