TECHNO EXPERT SOLUTIONS
AN INSTITUTE FOR SPECIALIZED STUDIES!

Techno
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Course Content of CISCO:

WEEK 1

Module 1: Creating Larger Networks

In this module, you will learn the basics of Cisco routers and switches. You will be able to identify the different ports and ways to access and configure a Cisco router or a Cisco switch designed for a small to medium sized business. You will use Cisco Packet Tracer to explore the bootup process.

4 videos, 13 readings, 1 practice quiz

1. **Reading:** About This Course

2. **Reading:** Cisco Packet Tracer

3. **Reading:** Connecting More Devices

4. **Reading:** Cisco LAN Switches

5. **Reading:** Components of a LAN Switch

6. **Reading:** Status LEDs on a LAN Switch

7. **Video:** Components of a LAN Switch

8. **Practice Quiz:** Cisco LAN Switch Quiz

9. **Reading:** Powering Up

10. **Reading:** Device Management

11. **Video:** In-Band/Out-of-Band Device Management

12. **Reading:** Loading the IOS Start-Up Files

13. **Reading:** Components of a Router

14. **Reading:** Router Interface Ports

15. **Video:** Getting Started

16. **Reading:** Getting Started

17. **Reading:** Connecting to the Router

18. **Video:** Video Demonstration – The Cisco Router Boot Process

Graded: PT Activity - Connect to a Switch via the Console Port
Graded: Activity - Identify Router Components
Graded: Activity - The Cisco Router Boot Process
Graded: Week 1 Quiz

WEEK 2

Module 2: Using the Cisco IOS Command Line Interface

In this module, you will use Cisco Packet Tracer to explore the different configuration modes of routers and switches. You will learn how to use the help functions to better navigate the device operating system. You will also explore many of the common show commands that give insight into the device configuration. 4 videos, 9 readings

1. **Reading:** What is the Cisco IOS Command Line Interface?
2. **Video:** Establish a Console Connection
3. **Reading:** Primary Command Modes
4. **Video:** Navigate Between IOS Modes
5. **Reading:** Navigate Between IOS Modes
6. **Reading:** Basic IOS Command Structure
7. **Reading:** IOS Command Syntax
8. **Video:** IOS Help Features
9. **Reading:** IOS Help Features
10. **Reading:** Hotkeys and Shortcuts
11. **Video:** Show Commands
12. **Reading:** What are "Show Commands"?
13. **Reading:** Tell Me About Yourself

Graded: PT Activity - Navigating the IOS
Graded: Week 2 Quiz
Graded: PT Activity - Using the Cisco IOS Show Commands

WEEK 3

Module 3: Building a Small Cisco Network

This module allows you to perform the basic setup and configuration steps needed to get switches and routers connected in a small network. You will also learn how to configure the router and the switch for remote access. You will use two different types of simulation tools to practice configuration steps. After completing required configuration tasks, you will use various show commands to verify configurations and

use the ping command to verify basic connectivity between devices. Expect lots of opportunities for practicing Cisco device configuration.

11 readings, 5 practice quizzes

1. **Reading:** Basic Switch Configuration Steps

2. **Reading:** Why does a Switch Need an IP Address?

3. **Practice Quiz:** Syntax Checker - Configuring a Switch Virtual Interface

4. **Reading:** Basic Router Configuration Steps

5. **Practice Quiz:** Syntax Checker - Basic Router Configuration Tasks

6. **Reading:** Configure Router Interfaces

7. **Practice Quiz:** Syntax Checker - Configuring LAN Interfaces

8. **Reading:** Verify Interface Configuration

9. **Reading:** Password Recommendations

10. **Reading:** Securing Remote Access

11. **Reading:** Configuring SSH

12. **Practice Quiz:** Syntax Checker - Configuring SSH

13. **Reading:** Verifying SSH

14. **Reading:** Default Gateway for a Host

15. **Reading:** Default Gateway for a Switch

16. **Practice Quiz:** Syntax Checker - Configuring a Switch Default Gateway

Graded: PT Activity – Implementing Basic Connectivity
Graded: PT Activity – Configure Initial Router Settings
Graded: PT Activity – Configuring SSH
Graded: Week 3 Quiz
Graded: PT Activity – Building a Switch and Router Network

WEEK 4
Module 4: Troubleshooting Common Network Problems

27 readings, 1 practice quiz

1. **Reading:** What is Network Troubleshooting?

2. **Reading:** Gathering Information

3. **Reading:** We Have Identified a Problem

4. **Reading:** Other Good Approaches

5. **Reading:** Activity – Select a Troubleshooting Approach

6. **Reading:** Using Your Senses

7. **Reading:** Using Software Tools and Utilities

8. **Reading:** Getting IP Information from Windows Devices

9. **Reading:** Using the ping Command

10. **Reading:** What do the ping Results Tell Us?

11. **Reading:** Can I Get to My Destination?

12. **Reading:** Identifying Active Connections

13. **Reading:** Troubleshooting DNS

14. **Reading:** Divide and Conquer

15. **Reading:** Bottom Up

16. **Reading:** Cabling Problems

17. **Reading:** Causes of Wireless Issues

18. **Reading:** Authentication and Association Errors

19. **Reading:** DHCP Server Configuration Errors

20. **Reading:** Why Can't We Get to the Internet?

21. **Reading:** Could it be the Firewall?

22. **Reading:** Activity – The Troubleshooting Process

23. **Reading:** Where Can I Get Help?

24. **Reading:** When to Call for Help

25. **Reading:** Using the Support Desk

26. **Reading:** Resolving the Issue

27. **Reading:** Support Desk Tickets and Work Orders

28. **Practice Quiz:** PT Activity Challenge – Putting It All Together

Graded: PT Activity – Using the ipconfig Command
Graded: PT Activity - Using the ping Command
Graded: Lab - Troubleshooting Using Network Utilities
Graded: PT Activity – Troubleshooting a Wireless Connection
Graded: Week 4 Quiz