



IUWNE: CCNA Wireless Bootcamp v2.0

Course ID#: 1575-930-ZZ-W

Hours: 35

Course Content

Course Description:

This training course is a five-day instructor-led training and includes instructor assisted, hands-on labs. The Implementing Cisco Unified Wireless Networking Essentials training class is designed to help you prepare for the CCNA Wireless certification, an associate level certification in the wireless field. The goal of the IUWNE is to provide you with information to prepare you to help design, install, configure, monitor and conduct basic troubleshooting tasks of a Cisco WLAN in small and medium-sized business and enterprise installations.

In this course, you'll learn to design, install, configure, monitor, and troubleshoot a Cisco Wireless Local Area Network (WLAN) in small and medium-sized business and enterprise installations. You'll cover controller and access point (AP) configuration, and you'll learn to install a mobility express wireless controller and AP.

You'll reinforce what you learn during the lecture by:

- Working with remote labs using real Cisco equipment to convert an autonomous AP to controller-based mode
- Working with the map editor tool
- Troubleshooting issues introduced by the instructor

During this course, you will gain knowledge of the following:

- Fundamentals of wireless technologies
- The Cisco Unified Wireless Network architecture
- Basic installation of a Wireless LAN Controller
- Install and configure wireless client software
- Implement basic wireless security
- Perform basic WCS administration
- Perform basic maintenance and troubleshooting tasks in a wireless environment

Target Student:

- Network engineers, network administrators, network managers, and system engineers
- WLAN designers, planners, implementers, and optimizers
- Anyone wishing to attain the CCNP Wireless level

Prerequisites:

CCNA Certification



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Topics:

Module 1: Wireless Fundamentals

- Wireless Networks and Topologies
- Wireless LANs Radio Frequency (RF) Principles
- RF Mathematics
- Antennae
- Spread Spectrum Technologies Basics
- Wireless Regulatory Bodies, Standards and Certifications
- Examining Wireless Media Access
- Other Wireless Technologies and Their Impact
- Wireless Frame Journey: End-to-End
- Cisco Unified Wireless Network Architecture Basics

Module 2: Basic Cisco WLAN Installation

- Configure a Controller
- Discovering and Associating to a Controller
- Different AP Modes
- Roaming
- Managing the Network from the Controller
- Configuring and Migrating Stand-Alone Access Points
- Cisco Mobility Express Wireless Architecture

Module 3: Wireless Clients

- Using Default OS Configuration Tool
- Cisco Aironet WLAN Client Adapter
- Cisco Secure Services Client
- Cisco Client Extension Program

Module 4: WLAN Security

- Wireless Security Framework and Components
- Establishing Basic IEEE 802.11 Security
- Centralizing the WLAN Authentication
- EAP Authentications
- Managing Authentication and Encryption with WPA and WPA2
- Configuring Security on Controllers and Clients

Module 5: WCS Administration

- WCS and Navigator
- Installing WCS
- Administering WCS
- Working with Controllers from WCS
- Working with Maps
- Monitoring the Network with WCS

Module 6: WLAN Maintenance and Troubleshooting

- Maintaining the System
- Design and Site Survey Considerations
- Using Troubleshooting Tools

Labs

- Familiarization with Antennae And Ranges
- EIRP Calculation and Antenna Choice
- Creating and Ad-hoc (IBSS) Network and Analyzing the C
- Configure A Controller
- Configuring And Migrating Standalone Access Points



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Labs Continued

- Installing And Configuring A Mobility Express Wireless
- Installing And Using The ADU
- Experimenting with Connections And Roaming
- 802.1Q and Web Authentication
- Configure EAP-FAST Authentication With WPA
- Configuring Controllers And Access Points From The WCS
- Working With Maps
- Monitor The Network And Containing Devices
- Backup The Controller Configuration
- Troubleshooting