



# CUWNBC – Cisco Unified Wireless Networking Boot Camp

Hours: 35

## Course Content

### Course Description:

This course combines WDBWL and WDAWL into a five day course, presenting students with challenging real-world deployments such as client mobility between subnets, high client density deployments, and mesh network deployments. Students will be trained on how to make network design decisions about, configure, and troubleshoot WLANs with these challenges. The format of the course allows students and the instructor to explore realistic use cases and best practices around more challenging deployment scenarios. The course is written at software code level 7.5.

Upon successful completion of this course, students should be able to:

- Successfully plan, install, configure, troubleshoot, monitor and maintain basic Cisco Wireless LAN solutions in a customer enterprise environment
- Configure autonomous, unified, and FlexConnect architectures
- Configure all base feature sets, including wireless security
- Administer the WLAN network
- Maintain and troubleshoot basic wireless networks
- Describe the steps involved in client mobility at layer 2 and the differences involved in client mobility at layer 3
- Discuss the challenges faced in providing a quality user experience in a high density wireless network deployment scenario
- Differentiate the operational characteristics of, and implement, a wireless MESH architecture

### Target Student:

This course is intended for IT engineers or administrators who need to know the fundamentals about planning, installing, configuring, troubleshooting, and maintaining a basic Cisco Wireless LAN infrastructure. This includes installers, SEs, Field Engineers, technical support professionals, network managers, security team members, and administrators.

### Prerequisites:

Prior to taking this course, it is recommended that students have the following knowledge and skills:

- Prior completion of Defining Cisco Wireless LAN Essentials course or equivalent work experience (recommended)
- Basic networking skills
- RF/Wireless field experience (helpful)



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## Topics:

### Module 1 - Cisco Wireless LAN Essentials Refresher

- High level review of prerequisite course - Defining Cisco Wireless LAN Essentials

### Module 2 - Pre-Deployment Planning

- Successful Wireless Deployments and Pre-deployment Planning
- Cisco WLAN Professional Services
- Spectrum Expert
- PI Planning tools

### Module 3 - Autonomous Deployments

- Easy Setup GUI Interface
- Basic Setup via CLI
- Access Point Modes
- Bridge Modes
- Non-Client serving Modes

### Module 4 - Unified Deployments

- Initial controller Setup, and configure basic settings
- Modes of operation available for a unified access point
- Mechanisms by which an AP associates to a WLC
- User Interfaces to the System
- Radio Resource Management and CleanAir
- Administering WLANs and AP Groups
- Configuring Quality of Service
- IPv6 Support
- Identify and Configure the Wireless LAN
- Security Parameters
- General Administration
- Guest Access

### Module 5 - FlexConnect Deployments

- Benefits and Limitations of FlexConnect Architecture
- Operational Differences between FlexConnect and Unified Architectures

### Module 6 - Wireless LAN Maintenance and Troubleshooting

- Routine Maintenance
- Policy Configuration and Management
- Gathering Data
- Troubleshooting in a Cisco Unified Wireless Network Lab Outline:

**Lab 4-1:** Performing the Initial WLC Configuration Using the CLI

**Lab 4-2:** Unified AP Modes of Operation

**Lab 4-3:** AP Association Options

**Lab 4-4:** Controller Web Interface

**Lab 4-5:** Configuring RRM and CleanAir

**Lab 4-8:** Configuring IPv6 First Hop Security

**Lab 4-9:** Configuring Security Parameters on the WLC

**Lab 4-10:** Configuring Guest Access and Web Authentication From WDAWL:

### Module 7 - Client Mobility

- Same Subnet Roaming
- Inter-subnet Mobility



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## **Module 8 - High Density Deployment Challenges**

- Effects of Client Density on a Wireless Network
- Planning for Areas of High Client Density

## **Module 9 - Implementing Mesh Network**

- Describe Wireless Mesh Networks
- Mesh Network Formation Process
- Implementing a Mesh Network for the Enterprise
- Configuring Advanced Mesh Features
- Troubleshooting a Mesh Network

### **Lab Outline:**

#### **Lab 9-1:** Configuring Mesh Access Points