

## **WLFNDU: Understanding Cisco Wireless Foundations**

Course Code: WLFNDU

Duration: 5 days

Instructor-led Training (ILT) | Virtual Instructor-led Training (VILT)

### **OVERVIEW**

The Understanding Cisco Wireless Foundations (WLFNDU) training teaches you the knowledge and skills you need to configure, manage, and troubleshoot a Cisco wireless LAN (WLAN) network. Topics include understanding critical aspects of RF technology, industry standards for Wi-Fi and security, how to design, install, and configure a WLAN network of any size, and using Cisco DNA Center. This training also earns you 30 Continuing Education (CE) credits towards recertification.

This course teaches you how to design, install, configure, monitor, and conduct basic troubleshooting tasks on a Cisco WLAN network of any size. This course also earns you 40 Continuing Education (CE) credits towards recertification.

### **SKILLS COVERED**

After taking this course, you should be able to:

- Describe and implement foundational wireless theory
- Describe and implement foundational wireless math and antennas
- Describe and implement foundational wireless operation including Wi-Fi 6
- Describe security and client access in a wireless network
- Implement 802.1X and Extensible Authentication Protocol (EAP)
- Implement wireless guest access and configure wireless security

- Describe Cisco wireless architecture components and deployment options
- Describe Cisco wireless architecture and its deployment modes, the Control and Provisioning of Wireless Access Points (CAPWAP) protocol, and the Cisco WLC and AP line up
- Describe the wired support for implementing wireless networks
- Deploy Cisco centralized wireless networks using Cisco 9800 WLC
- Describe the centralized wireless access model and its configuration
- Describe maintenance and troubleshooting in the centralized WLAN model
- Describe the management and monitoring of Cisco Wireless Networks with Cisco DNA Center

### **WHO SHOULD ATTEND?**

- Network engineer
- Systems engineer
- Wireless engineer
- Technical solutions architect
- Network administrator
- Wireless design engineer
- Network manager

### **PRE-REQUISITES**

We recommend but do not require that you have the following knowledge and skills before taking this course:

- General knowledge of networks
- General knowledge of wireless networks
- Routing and switching knowledge

**MODULES****END OF PAGE****Course Outline**

- Module 1: RF and WLAN Theory
- Module 2: WLAN Math and Antennas
- Module 3: Wi-Fi Operations
- Module 4: Basic WLAN Security
- Module 5: Advanced WLAN Security
- Module 6: Configuring WLAN Security
- Module 7: Cisco Wireless Network Architecture
- Module 8: Implementing Cisco Wireless Network
- Module 9: Implementing Cisco Wireless Network Wired Support
- Module 10: Deploying Cisco Centralized Wireless Networks
- Module 11: Configuring Cisco Centralized Wireless Networks
- Module 12: Maintaining and Troubleshooting Cisco Wireless Networks
- Module 13: Managing and Monitoring Cisco Wireless Networks with Cisco DNA Center

**Lab Outline**

- Discovery 1: Practice RF Math
- Discovery 2: Antenna Calculations
- Discovery 3: Explore the Wi-Fi Environment
- Discovery 4: Analyze Wireless Frames
- Discovery 5: Configure Client Access
- Discovery 6: Deploy Cisco 9800 WLC
- Discovery 7: Configure Cisco 9800 WLC
- Discovery 8: Perform Cisco 9800 WLC Maintenance