

# Understanding Cisco Wireless Foundations (WLFNDU) v1.0

## What you'll learn in this course

The **Understanding Cisco Wireless Foundations (WLFNDU)** v1.0 course gives you the knowledge and skills you need to position, plan, implement, operate, and manage a Cisco® Wireless LAN (WLAN) network. 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 does not lead directly to a certification exam, but it does cover foundational knowledge that can help you prepare for professional-level enterprise wireless courses and exams:

Enterprise Wireless Courses	Enterprise Wireless Exams
Designing Cisco Enterprise Wireless Networks (ENWLSD)	300-425 Designing Cisco Enterprise Wireless Networks (ENWLSD)
Implementing Cisco Enterprise Wireless Networks (ENWLSI)	300-430 Implementing Cisco Enterprise Wireless Networks (ENWLSI)

## Course duration

- Instructor-led training: 5 days in the classroom with hands-on lab practice
- Virtual instructor-led training: 5 days of web-based instruction with hands-on lab practice
- E-learning: Equivalent of 5 days in the classroom with hands-on lab practice

## How you'll benefit

This course will help you:

- Learn the skills, technologies, and best practices needed to manage a Cisco WLAN network
- Understand and implement a Cisco wireless network architecture
- Design and implement WLAN maintenance and troubleshooting solutions

## Who should enroll

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

## How to enroll

- For instructor-led training, visit the [Cisco Learning Locator](#).
- For private group training, visit [Cisco Private Group Training](#).
- For self-paced e-learning, visit the [Cisco Learning Network Store](#).
- For digital library access, visit the [Cisco Learning Library](#).

## Technology areas

- Enterprise networking
- Wireless networking

## Course details

### Objectives

After taking this course, you should be able to:

- Describe and implement foundational wireless theory
- Describe and implement basic wireless security and client access
- Describe and implement a Cisco wireless network architecture
- Configure Cisco centralized wireless networks
- Describe and implement WLAN maintenance and troubleshooting

### Prerequisites

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

### Outline

- Describing and Implementing Foundational Wireless Theory
- Describing and Implementing Foundational Wireless Math and Antennas
- Describing and Implementing Foundational Wireless Operation
- Describing and Implementing Basic Wireless Security
- Describing and Implementing 802.1X and Extensible Authentication Protocol (EAP)
- Implementing Wireless Guest Access and Configuring Wireless Security
- Describing and Implementing Cisco Wireless Network Architecture
- Describing and Implementing Cisco Wireless Network
- Describing and Implementing Cisco Wireless Network Wired Support
- Configuring Cisco Centralized Wireless Networks
- Describing and Implementing WLAN Maintenance and Troubleshooting

## Lab outline

- Practice RF Math
- Antenna Calculations
- Explore the Wi-Fi Environment
- Analyze Wireless Frames
- Configure Client Access
- Configure the Wired Infrastructure
- Configure a Centralized Cisco Wireless LAN Controller (WLC) Deployment
- Configure a Centralized WLAN Deployment on Cisco 3504 WLC
- Configure a Centralized WLAN Deployment on Cisco 9800 WLC
- Configure an IPv6 Operation in a Centralized WLAN Deployment
- Optimize RF Conditions and Performance for Clients
- Perform Centralized Controller Maintenance
- Use Troubleshooting Tools



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