



Certified Wireless Specialist

Duration: 1 Day **Course Code: CWS** **Version: 101**

Overview:

This course of the CWNP program provides an excellent, vendor-neutral introduction to 802.11 / Wi-Fi networks for "non-technical" people, and helps attendees prepare for the Certified Wireless Specialist (CWS) on-line exam and certification. The course goes beyond the basic CWS curriculum, explains the language and terminology of 802.11 standards and Wi-Fi, as well as the hardware and software used in indoor and outdoor wireless networks (WLANs) - from Radio Frequency (RF) concepts, through 802.11 / Wi-Fi terminology, to the details of Wi-Fi AP, client devices and wireless bridges.

The Certified Wireless Specialist (CWS) certification validates the knowledge of wireless sales, marketing, entry-level support and decision-making professionals in 802.11 / Wi-Fi networks.

Target Audience:

People responsible for selling or marketing wireless products and services. Entry-level / Level 1 IT support staff, supporting Wi-Fi network users. Decision-making professionals and stakeholders with influence over Wi-Fi network purchases. People wanting to take the Certitrek Certified Wireless Specialist (CWS) on-line certification exam.

Objectives:

- After completing this course, you will be able to:
 - Understand Wi-Fi equipment and its primary functions
 - Understand 802.11 / Wi-Fi terminology
 - Identify Wireless LAN hardware and software
 - Understand essential aspects of outdoor wireless networks
 - Specify Wi-Fi site survey requirements
 - Understand how to define an Organisation's goals and requirements for a Wi-Fi network
 - Prepare for the Certitrek Certified Wireless Specialist (CWS) on-line certification exam.
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Prerequisites:

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Testing and Certification

The CWS course helps attendees prepare for the CWS-101 exam: Certified Wireless Specialist (CWS).

Primary Knowledge Domains of the CWS Exam:

- Understand Basic RF Hardware and Functions - 15% of exam
 - Identify 802.11 Features and Functions - 30% of exam
 - Identify Wireless LAN Hardware and Software - 30% of exam
 - Understand Organizational Goals - 25% of exam
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Content:

Understanding Radio Frequency (RF) concepts

- Understanding the essential characteristics of Radio Frequency transmissions
- How do RF signals move through an environment?
- Understanding the RF bands used for Wi-Fi
- RF channels and Channel Plans

IEEE 802.11 Standards and Amendments

- From 802.11 to 802.11ax and beyond
- What are DSSS, OFDM, ERP, HT, VHT and HE?
- What are the capabilities of each standard
- Understanding the basic Physical layer (PHY) characteristics

Wi-Fi Equipment

- The role and functions of Wireless Access Points (APs)
- AP features and capabilities
- Standalone, controller-based, branch and controller-less APs
- Understanding AP management
- Understanding Wi-Fi antennas
- Choosing between WLAN antenna types

Wireless Clients

- Understanding the capabilities of Wi-Fi client devices
- Discovering client devices and the applications in use
- Understanding the loads that Wi-Fi clients place on networks

Outdoor Wireless Bridge Links

- PTP versus PtMP
- How fast and far can we go with wireless links?
- Wireless link reliability
- Overview of Mesh networks

Wi-Fi Network Performance

- Factors that affect Wi-Fi network performance
- The Wi-Fi client perspective
- What affects Wi-Fi network capacity?
- The requirements for VoWLAN (Voice over Wi-Fi)

WLAN Security, BYOD and Guest Access

- Understanding WPA, WPA2 and WPA3 security
- Understanding Captive Portals (and splash pages)
- What are BYOD and MDM?
- Determining the best solution for BYOD and Guest Access

Enhanced 802.11 Functions

- Understanding the more advanced features of 802.11n, 802.11ac and 802.11ax
- What are the requirements for fast and secure roaming?

Understanding Wi-Fi Site Survey

- What's wrong with most Wi-Fi site surveys today?
- Why too many Wi-Fi networks fail to deliver
- The 7 types of Wi-Fi site survey
- What should a real Wi-Fi site survey involve?

Additional Information:

The CWS certification is an entry-level WLAN certification from the vendor-neutral CWNP organization that brought you CWNA and other advanced certifications. To earn the CWS certification, you must pass an online exam with a score of 70% or higher. Those desiring to work as instructors teaching CWS classes must pass with a score of 80% or higher. Regardless of the way you choose to prepare for the CWS exam, you should start with the exam objectives, which cover the full list of knowledge tested on the exam. The CWS is a three-year certification, and it is renewed by passing the most recent version of the CWS exam again. Global Knowledge is an official authorized learning partner of CWNP.

Further Information:

For More information, or to book your course, please call us on 0800/84.009

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