Certified Wireless Network Administrator (CWNA)

Certified Wireless Network Administrator (CWNA) course is the foundation of the CWNP program covering a broad range of wireless networking topics. CWNA brings IT professionals who are new to wireless networking up to speed quickly. For those individuals already familiar with wireless LANs, earning the CWNA certification fills in any gaps in their knowledge. Students learn how to administer, install, configure, and troubleshoot wireless network systems.

**Admission Requirements:**
All students should have at least a basic knowledge of networking (as exhibited in Net+, CCNA, CNA, or MCP) prior to enrolling in the course.

Certified Wireless Network Administrator Exam
The CWNA program prepares students for the Exam PW0-100.

**Course Description**

The CWNA class will cover the following topics:
- Radio Frequency (RF) Technologies
- Wireless LAN Technologies
- Implementation and Management
- Security
- Industry and Standards

**Course Outline**
- Radio Frequency (RF) Fundamentals
- Spread Spectrum Technologies
- Hardware Installation, Configuration, and Management
- Antennas and Accessories
- Organizations and Standards
- 802.11 Network Architecture
- Physical and MAC Layers
- Wireless LAN Security
- Site Surveying
- Troubleshooting Wireless LANs

**Hands-on Lab Exercises**

- Lab 1 Infrastructure Mode Connectivity
- Lab 2 Infrastructure Mode Throughput Analysis
- Lab 3 Ad Hoc Connectivity & Throughput Analysis
- Lab 4 Cell Sizing and Automatic Rate Selection (ARS) in an Infrastructure Environment
- Lab 5 Rudimentary Security Features
- Lab 6 Co-Channel and Adjacent Channel Interference
- Lab 7 Dynamic WEP Keys and Mutual Authentication using 802.1x/EAP and RADIUS
- Lab 8 Wireless VPNs using PPTP tunnels and RADIUS
Certified Wireless Security Professional (CWSP)

Our CWSP program measures the IT professional's knowledge of how to defend a wireless LAN from intruders. The material presented for CWSP will help lead to a successful implementation of a wireless network within an enterprise by educating the network engineer in necessary tools and processes available for securing wireless networks. Students will learn basic and advanced processes and techniques for keeping the enterprise wireless network data secure.

The Certified Wireless Security Professional™ (CWSP™) certification builds on the foundation of wireless LAN knowledge from the CWNA certification by educating the candidate about the security threats to and weaknesses of wireless LANs. The main topics of this course and the certification exam are hardware, software, protocols, procedures, and design techniques used in reducing wireless LAN security risks. Wireless Security Certification & Training is an essential step in developing your expertise in wireless technologies.

Admission Requirements:
All students must have successfully passed the CWNA (Exam# PW0-100) test. It is recommended that all CWSP candidates achieve either the SCP or Security+ certifications prior to attending a CWSP class.

Certified Wireless Security Professional (CWSP) Exam:
The CWSP program prepares students for Exam PW0-200.

Course Description:
The CWSP class will cover the following topics:

- Wireless LAN Intrusion
- Wireless LAN Security Policy
- Wireless LAN Security Solutions

Course Outline

- Risk Assessment
- Threat Analysis & Hacking Methodology
- Rudimentary Security Measures
- Intermediate Security Measures
- Advanced Security Measures
- Wireless LAN Auditing Tools
- Hardware & Software Solutions
- Prevention & Countermeasures
- Implementation and Management

Hands-on Lab Exercises

- Packet Analysis & Spoofing
- Rogue Hardware & Default Settings
- RF Jamming & Data Flooding
- Information Theft
- Wireless Hijacking and DoS Attacks
- Access Point VPNs
- Scalable Wireless VPN Solutions
- EAP - Cisco Wireless (LEAP)
- Layered Wireless Security
- Wireless Bridging Security
- 802.1x and EAP-TTLS
- SSH2 Tunneling & Local Port Redirection