



# Class Outline

## Certified Wireless Analysis Professional (CWAP)



### Objectives

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- Understand WLAN Frame Formatting and Structure
- Explain the Concept of RF Behavior Analysis
- Define the Advanced Features of WLAN Spectrum Analyzers
- Understand Data Collection Method Options
- Describe Analysis, Assessment, and Troubleshooting Methodologies

### Pre-Requisite Knowledge Advisory

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- Thorough Understanding of RF Technologies
- Understanding of Applications of 802.11 Networks

### Exam

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- CWAP-403
- Proctor: PearsonVUE
- Renewal: 3 years

### Class Outline

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#### Module 1 – 802.11 Summary

- Ensure Appropriate Troubleshooting Methods are Used
  - Define the Problem
  - Determine the Scale of the Problem
  - Identify the Cause(s)
  - Capture and Analyze Data
  - Observe the Problem
  - Choose Remediation Steps
  - Documenting
- Understand Frame Encapsulation and Aggregation

## **Module 2 – Protocol Analysis**

- Capture Frames
- Analyze Captured Frame
- Apply Configuration Parameters
- Utilizing Additional Tools

## **Module 3 – Physical Layer (PHY)**

- Understanding PLCP and PMD Sublayers
- Application of PLCP and PMD to Captured Data
- Pseudo Headers
- Protocol Analyzer Limitations in Capturing PHY Information
- Selecting Capture Devices

## **Module 4 – 802.11 MAC Frames**

- Identifying MAC Information
- Validating BSS Configuration
- Identification and Analysis of Frames

## **Module 5 – BSS Association, Transition, and Security Exchanges**

- BSS Discovery and Frame Exchanges
- Roaming Behavior Analysis

## **Module 6 – Medium Access Methods and QoS Frame Exchanges**

- Investigating 802.11 Contention Algorithms
- Analyzing QoS Configuration

## **Module 7 – MAC Operations**

- Analyzing Data Frame Exchanges
- Analyzing MAC Layer Operations

## **Module 8 – HT and VHT Operations**

- Analyzing HT / VHT Transmission Methods

## **Module 9 – Spectrum Analysis**

- Investigating Spectrum Analyzers
- Analyzing Spectrum Captures
- Spectrum Analysis Solutions