

Certification Program

Earn recognition for your proficiency of Ubiquiti's products, platforms, and services

Since 2012, Ubiquiti Academy's certification program has rapidly expanded, overseeing the training of more than 50,000 students worldwide. Choose from different UniFi & UISP courses as you start or develop your career in the dynamically evolving world of IT networking & operator technologies.



UISP UBWA

The UISP Broadband Wireless Admin course is a two-day, in-class training course that teaches the most important concepts in Outdoor Wireless Networking, with special emphasis on how to design, build, manage, and troubleshoot WISP networks. Course materials & lab activities teach with airOS-8 using airMAX AC equipment.



Course Outline

RF Theory

- Frequency vs. Propagation
- Unlicensed Bands
- OFDM Spectral Masks
- Licensed Frequencies
- Decibels in RF Systems
- Free Space Path Loss
- EIRP
- Line of Sight & Fresnel Zones
- Link Power Budgets
- Fade Margin

Radio Operation

- Standard RF Circuit
- Carrier Signals
- Radio Sensitivity
- Radio Selectivity
- Signal, Noise & Interference
- Chains, Data Rates & MIMO
- Thermal Noise
- Channel Flexing
- airPrism Technology
- Modulation, EVM & Data Rates

Antenna Theory

- What is Gain?
- Isotropic Radiators
- Antenna Function
- Gain, Efficiency & VSWR
- Gain, Surface Area & Directivity
- Polar Plots
- MIMO, Polarization & XPD
- Types of Antennas
- Antenna Alignment
- Downtilt, Lobes & Nulls

Ubiquiti Service Providers

- TDMA & airMAX Protocol
- 802.11, CSMA/CA & Indoor
- Problem of Hidden Node
- airMAX-AC, airOS-6 & -8
- Traffic Shaping & Burst
- Scalability vs. Performance
- Security & VLANs
- airFiber Technology & Protocols
- airOS Tools & Redundancy
- Bridged vs. Routed ISP

