

**Course Name : MTCWE**

**Course Time : 16 Hrs.**

**Course Prerequisites : MTCNA**

**Course Outline**

❖ **Wireless Installations**

- Wireless routers
- RouterBoard Hardware
- Wireless cards
- Antenna types

❖ **Wireless Standard**

- 802.11 a/b/g/n
- Bands and channel width
- Frequencies

❖ **Wireless Tools**

- Wireless Tools + LAB
- Scan
- Frequency usage
- Spectral Scan/History
- Snooper
- Align
- Sniffer

❖ **Wireless Troubleshooting**

- Troubleshooting wireless clients + LAB
- Registration table analysis
- Ack-Timeout/Distance
- CCQ
- TX/RX Signal Strength
- Frames and HW-frames
- Data-rates

❖ **Wireless Advanced Settings**

- Advanced Wireless Tab settings + LAB
- WMM
- Country regulation settings
- TX-power + LAB
- Virtual-AP

❖ **802.11n**

- 802.11n wireless protocol + LAB
- Features
- Data Rates
- Channel bonding
- Frame Aggregation

- TX-power for N cards
- Chain settings
- Wireless link debugging
- ❖ **Wireless Security**
  - Wireless Security Measures + LAB
  - Access Management
  - Access-List/Connect-List
  - RADIUS
  - Authentication
  - Encryption
  - EAP
  - Management Frame Protection
- ❖ **WDS and MESH**
  - Wireless WDS protocol + LAB
  - Dynamic/Static WDS
- ❖ **Wireless Bridging**
  - Wireless Transparent Bridge + LAB
- ❖ **Nstreme Protocol**
  - MikroTik Wireless Nstreme Protocol + LAB
  - Features
  - Configuration options
  - Nstreme Dual
  - Troubleshooting
- ❖ **Nv2 Protocol**
  - MikroTik Wireless Nv2 Protocol + LAB
  - Features
  - Configuration options
  - Troubleshooting

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