

# CCNA v7 – Switching, Routing and Wireless Essentials (SRWE)



## Course description:

CCNAv7: Switching, Routing and Wireless Essentials (SRWE) – The second course in the CCNA curriculum focuses on switching technologies and router operations that support small-to-medium business networks and includes wireless and security concepts. Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN.

## Training subjects:

- Basic Device Configuration;
- Switching Concepts;
- VLANs;
- Inter-VLAN Routing;
- STP;
- EtherChannel;
- DHCPv4;
- SLAAC and DHCPv6 Concepts;
- FHRP Concepts;

- LAN Security Concepts;
- Switch Security Configuration;
- WLAN Concepts;
- WLAN Configuration;
- Routing Concepts;
- IP Static Routing;
- Troubleshoot Static and Default Routes.

### Acquired skills:

- Configure devices by using security best practices;
- Explain how Layer 2 switches forward data;
- Implement VLANs and trunking in a switched network;
- Troubleshoot inter-VLAN routing on Layer 3 devices;
- Explain how STP enables redundancy in a Layer 2 network;
- Troubleshoot EtherChannel on switched links;
- Implement DHCPv4 to operate across multiple LANs;
- Configure dynamic address allocation in IPv6 networks;
- Explain how FHRPs provide default gateway services in a redundant network;
- Explain how vulnerabilities compromise LAN security;
- Implement switch security to mitigate LAN attacks;
- Explain how WLANs enable network connectivity;
- Implement a WLAN using a wireless router and WLC;

- Explain how routers use information in packets to make forwarding decisions;
- Configure IPv4 and IPv6 static routes;
- Troubleshoot static and default route configurations.

**Minimal requirements:**

- Completion of the specialist course CCNA v7 ITN.

**Time:** 40h

**Data:** To be defined

**Location:** Cyber Security Training Centre of Excellence, Warsaw.