SCANDINAVIAN ACADEMY
For Training and Development

Course: (CCNP) Routing and Switching

Code	City	Hotel	Start	End	Price	Language - Hours
IT-824	Madrid (Spain)	Hotel Meeting Room	2025-10-06	2025-10-10	5450 €	En - 25

Course Description

Welcome to the Cisco Certified Network Professional (CCNP) Training and Exam Preparation course! This comprehensive training program is designed for networking professionals aiming to advance their skills and prepare thoroughly for the CCNP certification exam. The CCNP certification is a highly regarded credential in the IT industry, demonstrating expertise in enterprise networking solutions. The CCNP Routing and Switching course aims to equip network professionals with the knowledge and skills necessary to effectively plan, implement, verify, and troubleshoot both local and wide-area enterprise networks. This course is specifically designed for network technicians who aspire to advance their careers and move into higher-level network administrator positions.

Course Objectives

- Advanced Routing and Switching Knowledge
- Proficiency in Network Implementation
- Network Troubleshooting Skills
- Hands-on Practical Experience
- Infrastructure Security
- VPN and Network Services

Who Should Attend:

- Network engineers, administrators, and technicians seeking to enhance their career with a CCNP certification.

- IT professionals aiming to deepen their understanding of Cisco networking solutions.
- Individuals who have already attained the Cisco Certified Network Associate (CCNA) certification and want to advance to the next level.

Course Outline

1: 300-101 ROUTE (Implementing Cisco IP Routing)

- **Network Principles:**
  - Network Theory
  - Network Infrastructure
- **Layer 2 Technologies:**
  - Link Aggregation
- **Layer 3 Technologies:**
  - EIGRP (Enhanced Interior Gateway Routing Protocol)
  - OSPF (Open Shortest Path First)
  - BGP (Border Gateway Protocol)
  - Redistribution
  - Path Control
- **VPN Technologies:**
  - DMVPN (Dynamic Multipoint VPN)
  - GRE (Generic Routing Encapsulation)
  - IPsec (Internet Protocol Security)
- **Infrastructure Security:**
  - Routing Protocol Authentication
- **Infrastructure Services:**
  - DHCP (Dynamic Host Configuration Protocol)
  - NAT (Network Address Translation)
  - SNMP (Simple Network Management Protocol)

2: 300-115 SWITCH (Implementing Cisco IP Switched Networks)

- **Layer 2 Technologies:**
    - Switch Administration
    - VLAN (Virtual Local Area Network)
    - Trunking
    - EtherChannel
    - Spanning Tree Protocol (STP)
    - Security Features (Port Security, Storm Control, etc.)
- **Infrastructure Security:**
    - Device Security
    - VLAN Access Control Lists (VACLs)
    - Infrastructure Services:
    - First Hop Redundancy Protocols (HSRP, VRRP, GLBP)
    - Network Monitoring and Maintenance

3: 300-135 TSHOOT (Troubleshooting and Maintaining Cisco IP Networks)

- **Network Principles:**
    - Troubleshooting Methodologies
    - Network Maintenance
- **Layer 2 Technologies:**
    - Troubleshooting VLANs, Trunking, EtherChannel, STP
- **Layer 3 Technologies:**
    - Troubleshooting IPv4 and IPv6 Addressing and Subnetting
    - Troubleshooting EIGRP, OSPF, BGP
    - Troubleshooting Redistribution
    - Troubleshooting Path Control
- **VPN Technologies:**
    - Troubleshooting GRE and DMVPN
- **Infrastructure Security:**
    - Troubleshooting Device Security and AAA (Authentication, Authorization, and

Accounting)

- **Infrastructure Services:**
  - ○ Troubleshooting DHCP, DNS, NAT, and NTP (Network Time Protocol)
  - ○ Troubleshooting SNMP
  - ○ Troubleshooting Network Management

The Scandinavian Academy for Training and Development adopts the latest scientific and professional methodologies in training and human resource development, aiming to enhance the efficiency of individuals and organizations. Training programs are delivered through a comprehensive approach that includes:

- Theoretical lectures supported by PowerPoint presentations and visual materials (videos and short films).
- Scientific evaluation of participants before and after the program to measure progress and knowledge acquisition.
- Brainstorming sessions and practical role-playing to simulate real-life scenarios.
- Case studies tailored to align with the training content and participants work nature.
- Assessment tests conducted at the end of the program to evaluate the achievement of training objectives.

Each participant receives the training material (both theoretical and practical) in printed form and saved on a CD or flash drive. Detailed reports, including attendance records, final results, and overall program evaluations, are also provided.

Training materials are prepared professionally by a team of experts and specialists in various fields. At the end of the program, participants are awarded a professional attendance certificate, signed and accredited by the Scandinavian Academy for Training and Development.

Program Timings:

- 9:00 AM to 2:00 PM in Arab cities.
- 10:00 AM to 3:00 PM in European and Asian cities.

The program includes:

- A daily buffet provided during the sessions to ensure participants comfort.