



CCNP - ROUTING & SWITCHING & SECURITY CERTIFICATION PROGRAM



CONTENTS

1. Introduction to CCNP
Certification

2. Why Choose This Program?

3. Who Can Apply?

4. Program Overview

5. Objectives and Outcomes

6. Skills Learned

7. Job Positions and
Opportunities

8. Key Industry Verticals

9. Program Outline

- Stage 1: Fundamentals of Routing & Switching
- Stage 2: Advanced Security Techniques
- Stage 3: Practical Applications
- Stage 4: Capstone Project
- Elective Modules

10. Enrollment Information



INTRODUCTION TO CCNP CERTIFICATION

Welcome, future network and security expert! This course equips you with skills and knowledge in two key areas: CCNP Routing and Switching and CCNP Security. The Routing and Switching component builds your ability to plan, implement, verify, and troubleshoot local and wide area enterprise networks, while the Security component focuses on deploying, managing, and monitoring network security products such as firewalls, VPNs, and IPS. This certification prepares you for a globally recognized credential in networking and security.





Why Choose Chools?

Numbers That Speak for Themselves:

- 10,000+ Successful Alumni: Join a network of impactful professionals.
- 95% Job Placement Rate: Secure your future with Chools' proven track record.
- 20+ Years of Excellence: Trust in a legacy of education and industry expertise.
- 200+ Industry Partnerships: Leverage our connections for real-world insights and opportunities.

What Sets Us Apart?

- **Expert Instructors:** Learn from industry veterans with hands-on experience.
- **Hybrid Learning Model:** Balance online flexibility with in-person engagement.
- **Comprehensive Curriculum:** Stay ahead with courses designed meet market demands.
- **Community and Networking:** Be part of an active community of learners and professionals.

Who Can Apply?

Eligibility Criteria:

- Candidates often have three to five years of experience implementing enterprise network solutions.
- No formal prerequisites, but recommended to have experience with Cisco solutions.





Ideal Candidates:

- Professionals aiming to advance their careers in networking and security and earn a globally recognized credential.

Program Overview

The CCNP – Routing & Switching & Security Certification Program provides extensive education in enterprise networking and security. Our curriculum ensures a comprehensive understanding through four progressive stages, combining theoretical knowledge with practical, hands-on experience.

Learning Mode:

- **Hybrid Learning Model:** Combines online learning with in-person sessions for flexibility and interactive engagement.
- **Interactive Sessions:** Includes live webinars, workshops, and Q&A forums with expert instructors and peers.
- **Self-paced Learning:** Access course materials anytime, allowing you to learn at your own pace.



Skills Learned

- **Routing and Switching:** Planning, implementing, verifying, and troubleshooting enterprise networks.
- **Network Security:** Deploying, managing, and monitoring security products like firewalls, VPNs, and IPS.
- **IP Services:** Configuring and managing IP services.
- **Network Automation and Programmability:** Using automation tools and programmable networks.
- **Troubleshooting:** Identifying and resolving network issues.
- **Advanced Security Measures:** Implementing advanced security techniques and tools.
- **Incident Response:** Responding to security incidents.
- **Security Policies:** Developing and implementing security policies.

Job Positions and Opportunities

- **Career Paths:** Network Engineer, Security Engineer, Network Administrator, Systems Engineer, IT Manager, Security Specialist, Technical Support Engineer.
- **Industry Demand:** High demand across various sectors, competitive salaries, and strong growth potential.

Key Industry Verticals

- **Skill Application Areas:** Finance, Healthcare, Technology, Government, Retail, Energy, Telecommunications, Manufacturing.



Curriculum Highlights:

- **Fundamental Knowledge:** Core principles of enterprise networking.
- **Advanced Techniques:** In-depth understanding of advanced networking tools and strategies.
- **Real-World Applications:** Practical projects and case studies to apply your learning.
- **Capstone Project:** A final project that integrates all your skills and knowledge, showcasing your proficiency in enterprise networking.

Professional Development:

- **Continuous Learning:** Stay updated with the latest trends and advancements in enterprise networking.
- **Networking Opportunities:** Connect with industry experts, peers, and alumni to advance your career.
- **Ethical Considerations:** Learn about data ethics, privacy, and compliance to maintain the integrity of your practices.

Program Objectives

- Master technical skills in enterprise networking.
- Implement advanced networking techniques and tools.
- Explore networking frameworks and best practices.
- Address real-world challenges in enterprise networking.
- Understand ethical considerations in data governance.
- Foster continuous learning.
- Encourage teamwork and collaboration.
- Prepare for advanced roles in enterprise networking.

Expected Outcomes

- Proficiency in routing, switching, and security tools and techniques.
- Practical experience through hands-on projects.
- Strong analytical and problem-solving skills.
- Application of ethical practices.
- Innovation in enterprise networking solutions.



PROGRAM OUTLINE

Stage 1: Fundamentals of Routing & Switching

1. Introduction to Routing & Switching

- o Core principles, tools, and industry applications.

2. Network Protocols and Standards

- o Understanding common network protocols and standards.

3. IP Addressing and Subnetting

- o Configuring and managing IP addresses and subnets.

4. Basic Network Configuration

- o Setting up basic network environments.

Stage 2: Advanced Security Techniques

5. Advanced Network Security

- o Implementing advanced security techniques and tools.

6. Firewall Management

- o Configuring and managing firewalls.

7. VPN Management

- o Setting up and managing VPNs.

8. Intrusion Prevention Systems

- o Implementing and managing IPS.

Stage 3: Practical Applications

9. Practical Networking and Security Projects

- o Developing and implementing networking and security projects.

10. Network Troubleshooting

- o Identifying and resolving network issues.

11. Data Analysis and Visualization

- o Analyzing network data and visualizing results.

12. Business Intelligence Applications

- o Using data for networking and security decision making.

Stage 4: Capstone Project

13. Integration of Learned Skills

- o Apply tools and techniques to real-world networking and security problems.

14. Advanced Networking Systems

- o Developing complex networking systems.

15. Cloud Networking and Security Management

- o Securing and managing cloud-based networks.

16. AI for Networking and Security

- o Implementing AI solutions in networking and security.

Elective Modules

17. Data Ethics and Privacy

- o Ethical considerations, privacy laws, compliance strategies.

18. Predictive Analytics with Networking and Security Management

- o Building and validating predictive models.

19. AI for Networking and Security Management

- o Implementing AI solutions in networking and security.

20. Advanced Data Warehousing Techniques

- o Optimizing data warehousing solutions.

21. Data-Driven Networking and Security Decision Making

- o Using data to inform and drive networking and security strategies.



PROGRAM OUTLINE



21. Data-Driven Networking and Security Decision Making

o Using data to inform and drive networking and security strategies.

22. Cloud Networking and Security Solutions

o Deploying networking and security management systems on cloud platforms.

23. Networking and Security Project Management

o Leading networking and security projects, ensuring successful delivery.

24. Big Data Security

o Securing data in big data environments.

25. IoT Networking and Security

o Securing and managing IoT devices and networks.

Enrollment Now Open!

Take the first step towards becoming a certified Network and Security Professional. Enroll in our program and enhance your career.