

Emerging Technologies

CCNP - Routing & Switching & Security Certification Program

Curriculum

Program Outline :

Module 1: Fundamentals of Routing & Switching

- 1. Introduction to Routing & Switching**
 - Core principles, tools, and industry applications.
- 2. Network Protocols and Standards**
 - Understanding common network protocols and standards.
- 3. IP Addressing and Subnetting**
 - Configuring and managing IP addresses and subnets.
- 4. Basic Network Configuration**
 - Setting up basic network environments.

Module 2: Advanced Security Techniques

- 5. Advanced Network Security**
 - Implementing advanced security techniques and tools.
- 6. Firewall Management**
 - Configuring and managing firewalls.
- 7. VPN Management**
 - Setting up and managing VPNs.
- 8. Intrusion Prevention Systems**

- Implementing and managing IPS.

Module 3: Practical Applications

9. Practical Networking and Security Projects

- Developing and implementing networking and security projects.

10. Network Troubleshooting

- Identifying and resolving network issues.

11. Data Analysis and Visualization

- Analyzing network data and visualizing results.

12. Business Intelligence Applications

- Using data for networking and security decision making.

Module 4: Capstone Project

13. Integration of Learned Skills

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

14. Advanced Networking Systems

- Developing complex networking systems.

15. Cloud Networking and Security Management

- Securing and managing cloud-based networks.

16. AI for Networking and Security

- Implementing AI solutions in networking and security.

Elective Modules

17. Data Ethics and Privacy

- Ethical considerations, privacy laws, compliance strategies.

18. Predictive Analytics with Networking and Security Management

- Building and validating predictive models.

19. AI for Networking and Security Management

- Implementing AI solutions in networking and security.

20. Advanced Data Warehousing Techniques

- Optimizing data warehousing solutions.

21. Data-Driven Networking and Security Decision Making

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

22. Cloud Networking and Security Solutions

- Deploying networking and security management systems on cloud platforms.

23. Networking and Security Project Management

- Leading networking and security projects, ensuring successful delivery.

24. Big Data Security

- Securing data in big data environments.

25. IoT Networking and Security

- Securing and managing IoT devices and networks.

Websites:

- <https://chools.in/>
- <https://ramaqchools.com/>
- <https://www.choolsgroup.com/>