

# **Emerging Technologies**

# Cisco Certified Design Expert (CCDE) Program

# Curriculum

# **Program Outline:**

#### **Module 1: Fundamentals of Network Design**

- 1. Introduction to Network Design
  - o Core principles, tools, and industry applications.
- 2. Requirements Analysis
  - o Translating business and technical requirements into functional specifications.
- 3. Basic Site Survey Procedures
  - o Conducting initial site surveys for network design.
- 4. Basic Network Design
  - Designing basic network solutions.

### **Module 2: Advanced Network Design Techniques**

- 5. Advanced Site Survey Procedures
  - o Conducting advanced site surveys for network design.
- 6. Advanced Network Design
  - Designing advanced network solutions.
- 7. Design Validation Techniques
  - Validating design through advanced testing and analysis.
- 8. Framework Connections



o Integrating network design with existing frameworks.

### **Module 3: Practical Applications**

### 9. Practical Network Design Projects

o Developing and implementing network design projects.

#### 10. Operation and Maintenance

o Operating and maintaining network solutions.

## 11. Oversight and Governance

o Managing and overseeing network governance.

## 12. Business Intelligence Applications

o Using data for network design decision making.

#### **Module 4: Capstone Project**

#### 13. Integration of Learned Skills

o Apply tools and techniques to real-world network design problems.

## 14. Advanced Network Design Systems

o Developing complex network design systems.

### 15. Cloud Network Design Management

o Securing and managing network design in cloud environments.

### 16. AI for Network Design

o Implementing AI solutions in network design.

#### **Elective Modules**

#### 17. Data Ethics and Privacy

o Ethical considerations, privacy laws, compliance strategies.

#### 18. Predictive Analytics with Network Design Management

Building and validating predictive models.

#### 19. AI for Network Design Management

o Implementing AI solutions in network design.

#### 20. Advanced Data Warehousing Techniques



Optimizing data warehousing solutions.

### 21. Data-Driven Network Design Decision Making

o Using data to inform and drive network design strategies.

# 22. Cloud Network Design Solutions

o Deploying network design management systems on cloud platforms.

# 23. Network Design Project Management

o Leading network design projects, ensuring successful delivery.

# 24. Big Data Security

o Securing data in big data environments.

# 25. IoT Network Design

o Securing and managing IoT devices and network designs.

#### Websites:

- <a href="https://chools.in/">https://chools.in/</a>
- https://ramaqchools.com/
- https://www.choolsgroup.com/