CDCP (Certified Data Center Professional) Course Outline

Duration: 24-30 Hours (Global Standards)
Level: Intermediate
Delivery Mode: Online/Offline
Certification: CDCP (Certified Data Center Professional)
Global Exam Code: CDCP

Module 1: Introduction to Data Center Concepts

Duration: 3-4 Hours

- Overview of Data Centers and Their Role in IT Infrastructure
- Evolution of Data Centers and Current Trends
- Key Components of a Data Center: Power, Cooling, Security, and Network
- Data Center Design: Key Considerations and Best Practices
- Importance of Availability, Reliability, and Efficiency in Data Centers

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Module 2: Data Center Infrastructure and Operations

Duration: 5-6 Hours

- Key Infrastructure Components of a Data Center
    - Power Distribution and Backup Systems
    - Cooling Systems: CRACs, AHUs, and Chillers
    - Racks, Servers, and Storage Devices
    - Cabling and Network Infrastructure
- Data Center Operations: Monitoring, Maintenance, and Management
- Managing Capacity and Scaling Data Center Resources
- Operational Excellence and Key Performance Indicators (KPIs)

Module 3: Data Center Design and Architecture

Duration: 5-6 Hours

- Principles of Data Center Design

    - Tiered Design: Tier I, II, III, and IV
    - Redundancy Models and Fault Tolerance
    - Green Data Center Design: Sustainability and Energy Efficiency
- Physical and Logical Layout of Data Centers
- Space Planning and Environmental Control
- Disaster Recovery and Business Continuity Planning in Data Centers

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Module 4: Data Center Power and Cooling Systems

Duration: 5-6 Hours

- Power Distribution Systems: UPS, Generators, and Batteries
- Cooling Systems and Techniques: Airflow Management, CRAC Units, and Free Cooling
- Thermal Management and Hot/Cold Aisle Containment
- Efficiency in Power and Cooling: PUE (Power Usage Effectiveness)
- Addressing Energy Consumption and Sustainability Challenges

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Module 5: Data Center Security and Risk Management

Duration: 4-5 Hours

- Physical Security Measures in Data Centers
    - Access Control, Surveillance, and Security Personnel
    - Biometric Security and Alarm Systems
- Cybersecurity in Data Centers: Protecting Infrastructure and Data
- Risk Management Strategies and Business Impact Analysis
- Incident Response and Recovery Planning
- Data Center Auditing and Compliance

Module 6: Disaster Recovery and Business Continuity in Data Centers

Duration: 4-5 Hours

- Introduction to Disaster Recovery (DR) and Business Continuity (BC)
- Designing DR and BC Strategies for Data Centers
- Importance of Backup and Offsite Data Storage
- Data Replication and Fault Tolerance

- Testing DR Plans and Ensuring Readiness
- Real-world Scenarios and Case Studies of DR Implementation

Module 7: Data Center Monitoring and Management

Duration: 4-5 Hours

- Tools and Techniques for Data Center Monitoring
- Key Metrics: Temperature, Humidity, Power Consumption, and Network Traffic
- Incident Management and Root Cause Analysis
- Automation in Data Center Operations
- Reporting and Optimization of Data Center Performance

Module 8: CDCP Certification Exam Preparation

Duration: 3-4 Hours

- Review of Key Concepts and Exam Topics
- Practice Questions and Real-world Scenarios
- CDCP Exam Structure and Tips
- Time Management and Answer Strategies for the Exam
- Understanding the Certification Process and Next Steps

Module 9: CDCP Certification Exam

- Final Exam: **CDCP Certification Exam**
- Post-Exam: Understanding Results and Certification Details
- Career Pathways After CDCP Certification