

Certified Data Centre Expert (CDCE)[™]

Course Outline



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What Modules are covered?

Module 1 – Power Redundancy in the Data Center

- 1) Introduction
- 2) UPS
- 3) Types of UPS
- 4) Standby UPS
- 5) Line Interactive UPS
- 6) Standby-Ferro UPS
- 7) Double Conversion On-Line UPS
- 8) Delta Conversion On-Line
- 9) UPS System Design Configuration
- 10) The Concept of “N”
- 11) Types of Redundancies
- 12) UPS Rightsizing
- 13) Power Environments
- 14) Standby Generators

Module 2 – Power Distribution I

- 1) Introduction
- 2) Power Transmission Overview
- 3) Nominal Vs Normal Voltage
- 4) Transformer
- 5) Type of Transformers
- 6) Service Entrance
- 7) Main Electrical Service Panel
- 8) Facility Transformers
- 9) Sub-Panels
- 10) Feeders
- 11) Branch Circuits
- 12) Receptacles

Module 3 – Physical Infrastructure Management Basics

- 1) What is Management?
- 2) Physical Infrastructure Management Challenges
- 3) Incident Management
- 4) Availability Management
- 5) Capacity Management
- 6) Physical Infrastructure Management Strategy
- 7) Management Focus
- 8) Physical Infrastructure Management Standards
- 9) Management Approaches
- 10) Element Managers
- 11) Enterprise Management System
- 12) Building Management System
- 13) Integrating Physical Infrastructure Management
- 14) Physical Infrastructure Element Manager

Module 4 – Rack Fundamentals

- 1) Introduction
- 2) The 19 Inch Standard
- 3) Earthquake Standards
- 4) Open Frame Rack
- 5) Advantages and Disadvantages of Open Frames
- 6) Server Enclosure
- 7) Networking Enclosure
- 8) Seismic Enclosure
- 9) Wall Mount Enclosure
- 10) Industry Survey Results
- 11) Lifecycle Costs
- 12) Availability
- 13) Improving Airflow: Door Ventilation
- 14) Improving Airflow: Blanking Panels
- 15) Improving Airflow: ADU

- 16) Improving Airflow: SADU
- 17) Improving Airflow: ARU
- 18) Maintenance and Serviceability
- 19) Adaptability and Scalability
- 20) Manageability
- 21) Floor Plan

Module 5 – Cooling System

- 1) Introduction
- 2) Rack based Cooling
- 3) Room based Cooling
- 4) Row based Cooling
- 5) Hybrid Cooling

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