multisoft
Systems

Certified Data Centre Specialist (CDCS) Training

COURSE CONTENT

GET IN TOUCH

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About Multisoft

Train yourself with the best and develop valuable in-demand skills with Multisoft Systems. A leading certification training provider, Multisoft collaborates with top technologies to bring world-class one-on-one and certification trainings. With the goal to empower professionals and business across the globe, we offer more than 1500 training courses, which are delivered by Multisoft's global subject matter experts. We offer tailored corporate training; project Based Training, comprehensive learning solution with lifetime e-learning access, after training support and globally recognized training certificates.

About Course

Certified Data Centre Specialist (CDCS) Training by Multisoft Systems is designed to provide in-depth knowledge of data centre operations, infrastructure, and best practices required to manage modern IT environments. This training focuses on the critical components of a data centre, including power systems, cooling mechanisms, network infrastructure, security controls, and maintenance strategies.

Module 1: Data Centre Design/Life Cycle Overview

- ✓ Phases of the data centre life cycle

Module 2: Standards and Rating Level Definitions

- ✓ Rating levels history and definitions
- ✓ Standards and guideline comparison
- ✓ N-redundancy options
- ✓ Distributed redundant options
- ✓ Concurrent maintainability
- ✓ Fault tolerant
- ✓ Substation requirements
- ✓ Example topologies
- ✓ Maintenance options

Module 3: Building Considerations

- ✓ Building location and floor loading considerations
- ✓ Floor and hanging loads requirements
- ✓ Firing rating for walls and glass
- ✓ Blast protection and bullet proofing
- ✓ Forced entry protection

Module 4: Advanced Raised Floor & Suspended Ceiling

- ✓ Raised Floor installation requirements
- ✓ Common raised floor problems
- ✓ Seismic protection
- ✓ Requirements for suspended ceiling

Module 5: Advanced Power

- ✓ Electrical formulae

- ✓ Single Line Diagram (SLD)
- ✓ Overcurrent protection devices
- ✓ Earth Leakage protection
- ✓ Sizing of protective components
- ✓ Surge protection
- ✓ Power cabling and PDU requirements
- ✓ Types of generators
- ✓ Generator components
- ✓ Fuel storage and calculation
- ✓ Generator parallelling
- ✓ Required UPS specifications
- ✓ UPS parallel configuration
- ✓ Harmonic filters
- ✓ Battery bank terminology
- ✓ Calculating battery banks
- ✓ Battery charging
- ✓ Parallelling battery banks
- ✓ Battery testing
- ✓ Battery case selection
- ✓ Flywheel
- ✓ Hydrogen fuel cells

Module 6: Advanced Electro Magnetic Fields

- ✓ Sources of EMF
- ✓ Single and three phase radiation
- ✓ Measuring EMF
- ✓ Safe distance guidance
- ✓ Calculation of EMF attenuation factors

Module 7: Advanced Cooling

- ✓ Cooling definitions
- ✓ Psychrometric chart
- ✓ ASHRAE recommendations
- ✓ Heat dissipation
- ✓ Equipment airflow
- ✓ Floor plan set-up
- ✓ Types of perforated tiles
- ✓ Rack door construction
- ✓ Delta-T and impact
- ✓ Optimizing airflow
- ✓ Thermal unit conversions
- ✓ Calculating air volume displacement (CFM/CMH)
- ✓ Cooling capacity calculations
- ✓ Computational Fluid Dynamics (CFD)
- ✓ Air-conditioner efficiency
- ✓ SHR impact on OPEX
- ✓ Efficiency indicators
- ✓ Air-conditioner selection
- ✓ Humidity control
- ✓ Redundancy requirements
- ✓ Installation requirements
- ✓ Service corridor considerations
- ✓ Set points and calibration
- ✓ Advanced cooling technologies – air cooling
- ✓ Advanced cooling technologies – liquid cooling

Module 8: Advanced Fire Protection

- ✓ Fire triangle

- ✓ Fire detection systems
- ✓ Installation and testing of smoke sensors
- ✓ Water-based suppression systems
- ✓ Gas-based suppression systems
- ✓ Calculate gas content
- ✓ Release and hold times
- ✓ Fire detection panel requirements
- ✓ Verification of installation
- ✓ Ongoing maintenance
- ✓ Alternative systems

Module 9: Designing and Installing Scalable Network Cabling Systems

- ✓ TIA-942 cabling structure topology
- ✓ Copper and fibre cabling
- ✓ ToR and EoR design
- ✓ Installation best practices
- ✓ Grounding and bonding
- ✓ Cables labelling and administration

Module 10: Environmental Specifications / Contamination Control

- ✓ Acoustic noise effects, regulations, specifications and limits
- ✓ Data centre contamination categories
- ✓ Contamination measurements, standards and limits
- ✓ Preventive measures

Module 11: Data Centre Efficiency

- ✓ Business drivers for environmental sustainability

- ✓ Green standards and guidelines
- ✓ Power Usage Effectiveness (PUE)
- ✓ PUE categories
- ✓ Additional performance metrics
- ✓ Open Compute Project (OCP)
- ✓ Savings on cooling infrastructure
- ✓ Savings on light infrastructure