Certified Data Centre Facilities Operations Specialist

Course Duration:24 Hours **Course code: CDFOS**

1. Course Overview

This course is designed for IT and facilities professionals responsible for the day-to-day operations, management, and maintenance of data center facilities. Participants will learn how to ensure operational efficiency, reliability, and safety while maintaining compliance with industry standards and best practices.

2. What you'll learn?

By the end of the course, learners should be able to:

- Understand data center facilities operations and best practices
- Manage power, cooling, and environmental systems efficiently
- Perform preventive maintenance and operational monitoring
- Implement safety and security protocols for personnel and equipment
- Optimize capacity planning and resource utilization
- Respond effectively to facility incidents and emergencies
- Ensure compliance with regulatory and industry standards

3. Target Audience

- Data center facility managers and operators
- IT infrastructure operations personnel
- Maintenance and engineering teams
- Security and compliance officers in data centers

4. Pre-Requisites

Familiarity with:

- Data center infrastructure (servers, storage, networking, power, and cooling systems)
- Basic IT operations and management
- Safety and security principles

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- Facility management concepts

5. Course content

Module 1: Course Introduction

- Introduction
- Course contents

Module 2: Overview of Data Center Facilities Operations

- Role and responsibilities of facilities operations
- Key performance indicators (KPIs) for operations
- Industry standards and best practices (TIA-942, Uptime Institute)

Module 3: Power Systems Management

- Power supply architecture and redundancy
- UPS systems and generators
- Power distribution units (PDUs)
- Energy efficiency and monitoring

Module 4: Cooling and Environmental Systems

- HVAC and CRAC/CRAH systems
- Cooling capacity planning and airflow management
- Environmental monitoring (temperature, humidity)
- Energy-efficient cooling strategies

Module 5: Facility Monitoring and Management Tools

- Data center infrastructure management (DCIM) systems
- Real-time monitoring of power, cooling, and environmental metrics
- Alarm management and automated alerts
- Capacity planning and reporting

Module 6: Preventive Maintenance and Operations

- Maintenance planning and scheduling
- Equipment inspection and testing
- Documentation and record-keeping
- Vendor and service management

Module 7: Safety and Security Management

- Access control and physical security
- Fire detection and suppression systems
- Emergency response procedures
- Occupational health and safety compliance

Module 8: Incident Management and Troubleshooting

- Identifying and responding to facility issues
- Root cause analysis
- Corrective and preventive actions
- Incident documentation and reporting

Module 9: Sustainability and Environmental Practices

- Energy efficiency initiatives
- Environmental compliance
- Waste management and recycling programs
- Green data center practices

Module 10: Capacity and Resource Optimization

- Space planning and rack utilization
- Redundancy and fault-tolerance planning
- Lifecycle management of critical infrastructure
- Planning for expansion and scalability

Module 11: Compliance and Audit Readiness

- Regulatory requirements and standards
- Preparing for audits and inspections

- Documentation and reporting for compliance
- Continuous improvement processes

Module 12: Course Wrap-Up

- Summary of key concepts
- Recommended resources for further learning

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