

DATA CENTER: CISCO UNIFIED FABRIC (DCICT)



DATE: to be confirmed

CONTACT: academy@techlan.it

STUDY BOOK:

PRICE: Request

COURSE OBJECTIVE:

The Cisco Data Center Networking Unified Fabric introduction course is designed to help students prepare for associate-level data center roles. The course covers foundational knowledge, skills, and technologies including network protocols and host-to-host communication, data center networking concepts and technologies, data center storage networking, and Cisco Unified Computing System (UCS) architecture.

Upon completion of this course, you will be able to:

- Describe and identify data center network protocols and host-to-host communication
- Describe basic data center networking concepts and use the Cisco NX-OS command-line interface and implement VLANs, trunks, and port channels
- Describe advanced data center networking concepts, implement multilayer switching, and perform basic configuration: protocols (OSPF, EIGRP, HSRP); AAA on Cisco NX-OS devices and secure remote administration; and access control lists
- Describe and compare basic data center storage connectivity options and configure VSANs
- Describe advanced data center storage and configure zoning, NPV mode, and NPIV on Cisco Nexus and Cisco MDS switches
- Identify the components of Cisco UCS architecture and use the Cisco UCS Manager GUI

PREREQUISIT:

It is recommended, but not required, that students have the following knowledge and skills:

- Good understanding of networking protocols
- Good understanding of the VMware environment
- Basic computer literacy
- Basic knowledge of Microsoft Windows operating systems
- Basic Internet usage skills

In relation to EXAM:

200-155 DCICT

WHO SHOULD ATTEND

Network administrators, engineers, designers, and managers

Cisco integrators/partners

Systems engineers

Consulting systems engineers

COURSE CONTENT:

MODULE 1: Network Protocols and Host-to-Host Communication

Ethernet Functions and Standards
Ethernet Hardware and Switching
OSI and TCP/IP Models
IPv4 and IPv6 Network Layer Addressing
Packet Delivery on a Hierarchical Network
TCP/IP Transport Layer

MODULE 2: Basic Data Center Networking Concepts

Data Center Network Architectures
the Cisco Nexus Family and NX-OS
Implementing VLANs and Trunks

MODULE 3: Advanced Data Center Networking Concepts

Routing Process on Nexus Switches
Routing Protocols on Nexus Switches
Layer 3 First Hop Redundancy
AAA on Nexus Switches
ACLs on Nexus Switches

MODULE 4: Basic Data Center Storage

Storage Connectivity Options in the Data Center
Fibre Channel Storage Networking
VSANs

MODULE 5: Advanced Data Center Storage

Communication Between Initiator and Target
Fibre Channel Zone Types and Their Uses
Cisco NPV Mode and NPIV
Data Center Ethernet Enhancements
Fibre Channel over Ethernet

MODULE 6: Cisco UCS Architecture

Cisco UCS Server Hardware Components
Cisco UCS Physical Connectivity for a Fabric
Interconnect Cluster
Cisco UCS Manager Interfaces

LABS:

Lab 1: Use the DCICN Lab System
Lab 2: Explore LAN Communication
Lab 3: Explore Protocol Analysis
Lab 4: Explore TCP and UDP Communication
Lab 5: Explore the Cisco NX-OS Command Line Interface
Lab 6: Explore Topology Discovery and Documentation
Lab 7: Implement VLANs and Trunks
Lab 8: Map a Spanning Tree and Configure Port Channels
Lab 9: Implement Multilayer Switching
Lab 10: Configure OSPF
Lab 11: Configure EIGRP
Lab 12: Configure HSRP
Lab 13: Configure AAA and Secure Remote Administration
Lab 14: Configure ACLs
Lab 15: Configure VSANs
Lab 16: Validate FLOGI and FCNS
Lab 17: Configure Zoning
Lab 18: Explore the Cisco UCS Manager GUI
Lab 19: Calculate Decimal, Binary, and Subnet