Current Technologies
Computer Learning Centers

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Platinum Learning

Understanding Cisco Data Center Foundations (DCFNDU) V1.1

WHERE GREAT TRAINING HAPPENS EVERYDAY!

Understanding Cisco Data Center Foundations (DCFNDU) V1.1

Course Duration

5 Days

Course Price

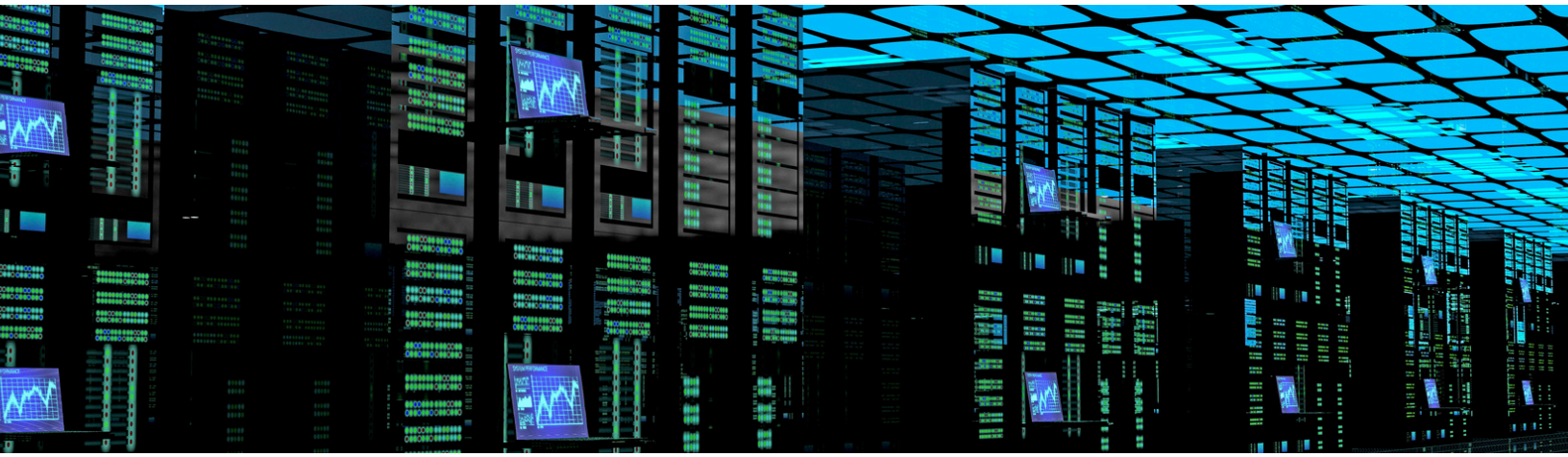
$4,595.00
46 CLCs

Methods of Delivery

In-Person ILT
Virtual ILT
Onsite ILT

About this Class

The Understanding Cisco Data Center Foundations (DCFNDU) V1.1 course helps you prepare for entry-level data center roles. In this course, you will learn the foundational knowledge and skills you need to configure Cisco® data center technologies including: networking, virtualization, storage area networking, and unified computing. You will get an introduction to Cisco Application Centric Infrastructure (Cisco ACI), automation and cloud computing. You will get hands-on experience with configuring features on Cisco Nexus Operating System (Cisco NX-OS) and Cisco Unified Computing System (Cisco UCS).



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How you will benefit

This class will help you:

- Prepare for entry-level job roles in the high-demand area of data center environments
- Prepare for courses that support the Cisco Certified Network Professional Data Center certification exams
- Gain knowledge and hands-on skills through Cisco's unique combination of lessons and hands-on practice using enterprise-grade Cisco learning technologies, data center equipment, and software
- This course also earns you 30 Continuing Education (CE) credits towards recertification.

Why Attend with Current Technologies CLC

- Our Instructors are the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Who Should Attend

The job roles best suited to the material in this course are:

- Data Center Administrators
- Data Center Engineers
- Systems Engineers
- Server Administrators
- Network Managers
- Cisco Integrators and Partners
- Data Center Designers
- Technical Solutions Architects
- Network Architects

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Objectives

After taking this course, you should be able to:

- Describe the foundations of data center networking
- Describe Cisco Nexus products and explain the basic Cisco NX-OS functionalities and tools
- Describe Layer 3 first-hop redundancy
- Describe Cisco FEX connectivity
- Describe Ethernet port channels and vPCs
- Introduce switch virtualization, machine virtualization, and describe network virtualization
- Compare storage connectivity options in the data center
- Describe Fibre Channel communication between the initiator server and the target storage
- Describe Fibre Channel zone types and their uses
- Describe NPV and NPIV
- Describe data center Ethernet enhancements that provide a lossless fabric
- Describe FCoE
- Describe data center server connectivity
- Describe Cisco UCS Manager
- Describe the purpose and advantages of APIs
- Describe Cisco ACI
- Describe the basic concepts of cloud computing

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Course Outline

Module 1: Describing the Data Center Network Architectures

- Cisco Data Center Architecture Overview
- Three-Tier Network: Core, Aggregation, and Access

Module 2: Describing the Cisco Nexus Family and Cisco NX-OS Software

- Cisco Nexus Data Center Product Overview
- Cisco NX-OS Software Architecture

Module 3: Describing Layer 3 First-Hop Redundancy

- Default Gateway Redundancy
- Hot Standby Router Protocol

Module 4: Describing Port Channels and vPCs

- Ethernet Port Channels
- Virtual Port Channels

Module 5: Describing Switch Virtualization

- Cisco Nexus Switch Basic Components
- Virtual Routing and Forwarding

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Course Outline

Module 6: Describing Machine Virtualization

- Virtual Machines
- Hypervisor

Module 7: Describing Network Virtualization

- Overlay Network Protocols
- VXLAN Overlay

Module 8: Introducing Basic Data Center Storage Concepts

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

Module 9: Describing Fibre Channel Communication Between the Initiator Server and the Target Storage

- Fibre Channel Layered Model
- FLOGI Process

Module 10: Describing Fibre Channel Zone Types and Their Uses

- Fibre Channel Zoning
- Zoning Configuration

Understanding Cisco Data Center Foundations (DCFNDU) V1.1

Course Outline

Module 11: Describing Cisco NPV Mode and NPIV

- Cisco NPV Mode
- NPIV Mode

Module 12: Describing Data Center Ethernet Enhancements

- IEEE Data Center Bridging
- Priority Flow Control

Module 13: Describing FCoE

- Cisco Unified Fabric
- FCoE Architecture

Module 14: Describing Cisco UCS Components

- Physical Cisco UCS Components
- Cisco Fabric Interconnect Product Overview

Module 15: Describing Cisco UCS Manager

- Cisco UCS Manager Overview
- Identity and Resource Pools for Hardware Abstraction

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Course Outline

Module 16: Using APIs

- Common Programmability Protocols and Methods
- How to Choose Models and Processes
- Automating the Data Center

Module 17: Describing Cisco ACI

- Cisco ACI Overview
- Multitier Applications in Cisco ACI

Module 18: Describing Cloud Computing

- Cloud Computing Overview
- Cloud Deployment Models

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Lab Outline

- Explore the Cisco NX-OS CLI
- Explore Topology Discovery
- Configure HSRP
- Configure vPCs
- Configure VRF
- Explore the VDC Elements
- Install ESXi and vCenter
- Configure VSANs
- Validate FLOGI and FCNS
- Configure Zoning
- Configure Unified Ports on a Cisco Nexus Switch and Implement FCoE
- Explore the Cisco UCS Server Environment
- Configure a Cisco UCS Service Profile
- Configure Cisco NX-OS with APIs
- Explore the Cisco UCS Manager XML API Management Information Tree
- Explore Cisco ACI