



COURSE CATALOG

January 1 - December 31, 2018

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GENERAL COURSE CATALOG

January 1st, 2018

NC-Expert

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NC-EXPERT

WHO WE ARE

NetCertExpert, Inc., dba NC-Expert is a for-profit, privately-held California C-Corporation which was established in 2011 with a view to filling the gap between IT engineers and their need to obtain top-quality, inexpensive, authorized certification training.

NC-Expert is an IT Training and Consulting Company, primarily focused on industry certification training.

MISSION STATEMENT

NC-Expert's vision is simple and straightforward "IT Training Made Easy!" Our company tag line explains our purpose: we are Experts creating Experts.

Our formal mission statement explains a little further: To provide the best quality and most accessible IT industry certification training available, which improves the careers and lives of professional network engineers and brings the best ROI for their employers.

NC-Expert's goal is to bring IT training to an understandable level, to support our students through the training and certification process, to act as mentors and guides, and to help our students succeed in their chosen IT career.

STUDENT RESPONSIBILITY

Each student is personally responsible for completing all prerequisite requirements established for their training course, class, or program. It is the student's responsibility to ascertain and meet these requirements. NC-Expert will provide as much relevant information as possible, but the final responsibility for checking for most recent information rests with the student.

Any substitution, waiver, or exemption from any established requirement or academic standard may be accomplished only with the written approval of an NC-Expert representative.

Students are expected to be proactive and responsible for their own academic success. NC-Expert and its staff will act in a support capacity, but the final responsibility for success rests with the student.

Study hard, follow any recommendations, be creative, use your intuition, don't give up - and you will achieve success!

COURSE ACRONYM LISTING

(alphabetical order)

- Cisco
 - Cloud
 - CCNA - CLDADM
 - CCNA - CLDFND
 - CCNP - CLDACI
 - CCNP - CLDAUT
 - CCNP - CLDDDES
 - CCNP - CLDINF
 - Collaboration
 - CCNA - CICD
 - CCNA - CIVND1
 - CCNA - CIVND2
 - CCNP - CAPPs
 - CCNP - CIPTV1
 - CCNP - CIPTV2
 - CCNP - CTCOLLAB
 - CCIE - CIEC
 - CCIE - MOCK
 - Cyber Ops
 - CCNA - SECFND
 - CCNA - SECOPS
 - Data Center
 - CCNA - DCICN
 - CCNA - DCICT
 - CCNP - DCID
 - CCNP - DCII
 - CCNP - DCIT
 - CCNP - DCUCI
 - CCNP - DCVAI
 - Design
 - CCNA - DESGN
 - CCNP - ARCH
 - CCNP - ROUTE
 - CCNP - SWITCH
 - CCIE - CCDE
 - Routing and Switching
 - CCENT - ICND1
 - CCNA - CCNAX
 - CCNA - ICND2
 - CCNP - ROUTE
 - CCNP - SWITCH
 - CCNP - TSHOOT
 - CCIE - CIERS1
 - CCIE - CIERS2
 - Security
 - CCNA - IINS

- CCNP - SENSS
 - CCNP - SIMOS
 - CCNP - SISAS
 - CCNP - SITCS
 - Service Provider
 - CCNA - SPNGN1
 - CCNA - SPNGN2
 - CCNP - SPADVROUTE
 - CCNP - SPCORE
 - CCNP - SPEDGE
 - CCNP - SPROUT
 - Wireless
 - CCNA - WiFUND
 - CCNP - WiDEPLOY
 - CCNP - WiDESIGN
 - CCNP - WiSECURE
 - CCNP - WiTSHOOT
 - CCIE - CIEWL1
 - CCIE - CIEWL2
- CompTIA
 - A+
 - Network+
 - Security+
- CWNP
 - CWAP
 - CWDP
 - CWNA
 - CWSP
 - CWTS
- EC-Council
 - CEH
 - CND
- (ISC)²
 - CISSP

CERTIFICATIONS

The following Certifications are obtainable, after attending NC-Expert training classes, and will result only from associated examination success.

- Cisco
 - Cloud - CCNA, CCNP
 - Collaboration - CCNA, CCNP, CCIE
 - Cyber Ops - CCNA
 - Data Center - CCNA, CCNP
 - Design - CCNA, CCNP, CCIE
 - Routing and Switching - CCNA, CCNP, CCIE
 - Security - CCNA, CCNP
 - Service Provider - CCNA, CCNP
 - Wireless - CCNA, CCNP, CCIE

- (ISC)²
 - CISSP

- CompTIA
 - A+ (Administrator Plus)
 - N+ (Network Plus)
 - S+ (Security Plus)

- CWNP
 - CWTS (Certified Wireless Technology Specialist)
 - CWNA (Certified Wireless Network Administrator)
 - CWSP (Certified Wireless Security Professional)
 - CWDP (Certified Wireless Design Professional)
 - CWAP (Certified Wireless Analysis Professional)

- EC-Council
 - CND
 - CEH

ASSOCIATED STANDARD OCCUPATIONAL CLASSIFICATION “SOC” CATEGORIES

15-1200 – Computer Occupations
15-1210 – Information Analysts (incl. Security)
15-1230 – Support Specialists
15-1240 – Network Administrators
15-1254 – Web Interface Developers
15-1299 – Other

COURSE DESCRIPTIONS

CISCO COURSES

Provider: Cisco

Track: Cloud

Course Acronym: CLDFND

Course Title: Understanding Cisco Cloud Fundamentals

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 210-451 CLDFND

Prerequisites: None

Course Overview:

Gain the foundational skills and understanding necessary to provide basic support for Cisco cloud products and solutions. Introducing Cisco Cloud Fundamentals (CLDFND) is a course that helps students prepare for the CCNA Cloud certification, an associate level certification specializing in Cloud technologies. This course is designed to provide students with necessary knowledge, skills and abilities (KSA) to perform foundational tasks related to Cloud computing.

Course Objectives:

- Describe common cloud characteristics and Identify the cloud service models
- Describe and Compare cloud deployment models
- Identify cloud deployment decision factors and Illustrate key features of UCS
- Define server virtualization and identify infrastructure virtualization
- Describe network architectures for the data center
- Analyze and Identify storage provisioning concepts
- Describe and Compare the difference between all the storage access technologies
- Describe and Compare various reference architectures for converged infrastructure

Course Outline:

1. Introduction to Cloud Computing
2. Cloud Networking
3. Cloud Storage
4. Cloud Compute
5. Cloud Automation and Reference Architectures

Who Should Attend:

- Cloud Engineers
- Cloud Administrators
- Cloud Operations / Support Engineers

- Cloud Design Engineers
- Cloud Infrastructure Architects
- Virtualization Engineers job roles

Provider: Cisco
Track: Cloud
Course Acronym: CLDADM
Course Title: Introducing Cisco Cloud Administration
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 210-455 CLDADM
Prerequisites: None

Course Overview:

Learn the essentials of Cisco cloud administration and operation. Introducing Cisco Cloud Administration (CLDADM) is a course designed to help students prepare for the CCNA Cloud certification, an associate level certification specializing in Cloud technologies. This course is designed to provide students with the necessary knowledge and skills to perform the essentials of Cloud administration and operations.

Course Objectives:

- Identify the components of the Cisco Cloud management software solution
- Understand the fundamentals of Cloud infrastructure administration
- Describe reporting and charge-back
- Provision Clouds using pre-configured templates
- Perform Cloud management, monitoring and remediation

Course Outline:

1. Cisco Cloud Technologies Overview
2. Cisco Cloud Administration
3. Cisco Cloud Provisioning
4. Cloud Systems Management and Monitoring
5. Cloud Remediation

Who Should Attend:

- Cloud Engineers
- Cloud Administrators
- Cloud Operations / Support Engineers
- Cloud Design Engineers
- Cloud Infrastructure Architects
- Virtualization Engineers job roles

Provider: Cisco

Track: Cloud

Course Acronym: CLDINF

Course Title: Implementing and Troubleshooting the Cisco Cloud Infrastructure

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-460 CLDINF

Prerequisites: Valid CCNA Cloud certification or any CCIE certification

Course Overview:

Learn how to implement and troubleshoot Cisco cloud infrastructure. This course is designed to prepare you with the knowledge and hands-on experience to implement and troubleshooting Cisco cloud infrastructure. In the labs, you will learn how to configure various cloud infrastructure components, such as Cisco Unified Computing System (UCS), Cisco UCS Director (UCSD), Cisco UCS Director Bare Metal Agent (BMA), Cisco MDS switches, Cisco Nexus 5500 Series switches, Cisco Nexus1000v & Cisco Cloud Services Router (CSR).

Course Objectives:

- Major components of the cloud infrastructure
- Implement and troubleshoot the computing component in the cloud
- Implement and troubleshoot the storage component in the cloud
- Implement and troubleshoot the network component in the cloud
- Troubleshoot cloud environments that consist of multiple components

Course Outline:

1. Cloud Infrastructure Overview
2. Cloud Infrastructure Computing Component
3. Cloud Infrastructure Storage Component
4. Cloud infrastructure Network Component
5. Troubleshoot Multiple Components

Who Should Attend:

- Data center engineers
- Cloud architects
- Infrastructure engineers
- Technical administrators

Provider: Cisco

Track: Cloud

Course Acronym: CLDDES

Course Title: Designing the Cisco Cloud

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-465 CLDDES

Prerequisites: Valid CCNA Cloud certification or any CCIE certification

Course Overview:

Learn how to design Cisco cloud components. You will be provided with the necessary knowledge and hands-on skills to design cloud deployments using the Cisco Cloud portfolio.

Course Objectives:

- Translate the business requirements into Cisco Cloud automation designs
- Define the appropriate Cisco Cloud solution, based on a broad range of products and technologies
- Design for the self-service user portal
- Design for the application and platform as a service
- Design for a private cloud infrastructure, automation, and security
- Design for a hybrid cloud infrastructure, automation, and security
- Design for virtual network services for private and hybrid clouds
- VM lifecycle management

Course Outline:

1. Translate Requirements into Automation Designs
2. Design a Private Cloud Infrastructure
3. Design a Hybrid Cloud Infrastructure
4. Secure the Cloud Infrastructure
5. Virtualization and Virtual Network Services for Private and Hybrid Clouds

Who Should Attend:

- Cloud architects
- Infrastructure engineers
- Technical administrators

Provider: Cisco

Track: Cloud

Course Acronym: CLDAUT

Course Title: Automating the Cisco Enterprise Cloud

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-470 CLDAUT

Prerequisites: Valid CCNA Cloud certification or any CCIE certification

Course Overview:

Learn how to automate and manage private and hybrid clouds. This course extensively covering the process of automating and managing private and hybrid clouds using the processes, applications and products of the Cisco ONE Enterprise Cloud Suite.

Course Objectives:

- Cisco's architectural components of the data center to support the infrastructure of a private cloud IaaS
- service offerings with Cisco PSC
- Automate network services in a private IaaS cloud
- Lifecycle management and application provisioning in the cloud
- How to use the ICF to manage the workloads in the hybrid cloud

Course Outline:

1. Manage Private Cloud Infrastructure for IaaS
2. Manage Private IaaS Catalog with Cisco PSC
3. Cisco VACS for Provisioning Private IaaS with Network Automation
4. Application Provisioning and Lifecycle Management
5. Manage Intercloud Fabric Connectivity for IaaS in Hybrid Cloud

Who Should Attend:

- Cloud architects
- Infrastructure engineers
- Technical administrators

Provider: Cisco

Track: Cloud

Course Acronym: CLDDACI

Course Title: Building the Cisco Cloud with Application Centric Infrastructure

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-475 CLDDACI

Prerequisites: Valid CCNA Cloud certification or any CCIE certification

Course Overview:

Learn how to implement public, private and hybrid clouds based on Cisco ACI. This course extensively covers the process of implementing public, private, and hybrid clouds based on Cisco ACI.

Course Objectives:

- Cisco Application Centric Infrastructure (ACI) fundamentals
- Integrate Cisco ACI with VM managers
- Implement application policies
- Configure Layer 4 to Layer 7 services
- Extend Cisco ACI to external Layer 3 and Layer 4 connections
- Configure orchestration and automation tools, protocols and application programming interfaces (APIs)

Course Outline:

1. Implement Cisco ACI Fundamentals
2. Implement Cisco ACI Enhanced Features
3. Configure Cisco ACI External Connections
4. Automate and Design Cisco ACI Deployment

Who Should Attend:

- Network administrator
- Server administrator
- Network engineer
- Systems engineer
- Technical solutions architect

Provider: Cisco

Track: Wireless

Course Acronym: CICD

Course Title: Implementing Cisco Collaborative Devices

Course Length: 5 days / 40 hours

Approximate Class Time: Monday-Friday, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 210-060 CICD

Prerequisites: None

Course Overview:

The CICD course will introduce you to maintaining and operating a Cisco Unified Communications solution and its components, including: Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, Cisco Unity Connection and Cisco Unified Communications Manager IM and Presence Service

Course Objectives:

- Components of a Cisco Unified Communications solution and identify call signaling and media stream flows
- Provide an overview of administrator and end-user interface options in Cisco Unified Communications Manager, Cisco Unified Communications Manager Express, Cisco Unity Connection, and Cisco Unified Communications Manager IM & Presence Service
- Call flows in Unified Communications Manager and Manager Express
- Perform endpoint & end-user admin tasks in Unified Communications Manager/Express
- Telephony features supported in Cisco Unified Communications Manager and Cisco Unified Communications Manager Express
- Administer users in Cisco Unity Connection & Cisco Unified Communications Manager IM and Presence Service and enable the most commonly used application features.
- How to maintain a Cisco Unified Communications solution
- Enable, configure, and manage the most common applications for users across Cisco Unified Communications Manager, Cisco Unity Connection, and Cisco Unified Communications Manager Instant Messenger and Presence

Course Outline:

1. Cisco Unified Communications Solutions
2. Administrator and End-User Interfaces
3. Call Flows in Cisco Call Control Platforms
4. Endpoint and End-User Administration
5. End User Telephony and Mobility Features
6. Cisco Unified Communications Solutions Maintenance
7. Cisco Unity Connection and Unified Communications Manager IM and Presence Service

Who Should Attend:

- Network Video Engineer, Collaboration Tools Engineer
- Voice/UC/Collaboration/Communications and Sales Engineer

Provider: Cisco

Track: Collaboration

Course Acronym: CIVND1

Course Title: Implementing Cisco Video Network Devices, Part 1

Course Length: 5 days / 40 hours

Approximate Class Time: Monday-Friday, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 210-065 CIVND (Exam requires knowledge from CIVND1 & CIVND2)

Prerequisites: It is recommended for the learner to have foundational IP networking knowledge

Course Overview:

Implementing Cisco Video Network Devices v1.0 is designed to provide you with the necessary knowledge and skills to implement various Cisco video endpoints in converged Cisco video infrastructures. It will describe, Cisco Business Video solutions and enable you to implement and troubleshoot Cisco Unified Communication and Collaboration, TelePresence, and Digital Media Player in different Cisco Business Video solution architectures.

Course Objectives:

- Cisco video and conferencing components and architectures
- Implement and configure Cisco Collaboration endpoints
- Implement and configure Cisco TelePresence endpoints
- Implement multipoint conferencing on Cisco Collaboration endpoints
- Implement Cisco DMP endpoints
- Environment recommendations
- Troubleshooting methodology and support

Course Outline:

Video Conferencing and Streaming Fundamentals

1. Introduction to Video and Video Applications
2. Video Technology Basics
3. Video Protocols and Media
4. Functional Components of Video Infrastructures
5. Network Requirements of Video Solutions
6. Cisco Video Solution Architecture Overview

Cisco TelePresence Endpoint Environmental Requirements and Installation

1. Environmental Requirements for Video Installations
2. Installing Cisco TelePresence Endpoints and Profile Systems

Who Should Attend:

- Network Video Operator and Administrator
- Voice / UC / Collaboration / Communications Engineer
- Collaboration Tools Engineer
- Collaboration Sales / Systems Engineer

Provider: Cisco

Track: Collaboration

Course Acronym: CIVND2

Course Title: Implementing Cisco Video Network Devices, Part 2

Course Length: 5 days / 40 hours

Approximate Class Time: Monday-Friday, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 210-065 CIVND (Exam requires knowledge from CIVND1 & CIVND2)

Prerequisites: It is recommended for the learner to have foundational IP networking knowledge

Course Overview:

Implementing Cisco Video Network Devices v1.0 is designed to provide you with the necessary knowledge and skills to implement various Cisco video endpoints in converged Cisco video infrastructures. It will describe, Cisco Business Video solutions and enable you to implement and troubleshoot Cisco Unified Communication and Collaboration, TelePresence, and Digital Media Player in different Cisco Business Video solution architectures. The software applications that are covered in this course include: Cisco Unified Communications Manager, IM and Presence, Cisco TelePresence Video Communication Server, Multipoint Controller Unit and TMS Server.

Course Objectives:

- Cisco video and conferencing components and architectures
- Implement and configure Cisco Collaboration endpoints
- Implement and configure Cisco TelePresence endpoints
- Implement multipoint conferencing on Cisco Collaboration endpoints
- Implement Cisco DMP endpoints
- Environment recommendations
- Troubleshooting methodology and support

Course Outline:

1. Video Conferencing and Streaming Fundamentals
2. Cisco TelePresence Endpoint Environmental Requirements and Installation
3. Cisco Business Video Solutions
4. Cisco Unified IP Phones, Collaboration Desk Endpoints and Cisco Jabber
5. Cisco TelePresence Endpoints
6. Multipoint Conferencing
7. Cisco Digital Media Players

Who Should Attend:

- Network Video Operator and Administrator
- Voice / UC / Collaboration / Communications Engineer
- Collaboration Tools Engineer
- Collaboration Sales / Systems Engineer

Provider: Cisco

Track: Collaboration

Course Acronym: CIPTV1

Course Title: Implementing Cisco IP Telephony and Video, Part 1

Course Length: 5 days / 40 hours

Approximate Class Time: Monday-Friday, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-070 CIPTV1

Prerequisites: Valid CCNA Collaboration certification or any Cisco CCIE/CCDE certification

Course Overview:

This hands-on course prepares you for implementing a Cisco collaboration solution in a single-site environment. Focusing primarily on Cisco Unified Communications Manager v10.x, you will learn post-installation tasks, such as configuring users and associating them with phones, as well as more advanced topics such as dial plan design and configuration, single site on-cluster and off-cluster calling, Media Gateway Control Protocol (MGCP), H.323 call signaling, SIP trunks, audio and video conferencing, QoS, and media resources. In addition, you will use the Cisco Unified Border Element (CUBE) with SIP Trunks. With the increasing importance of video and video conferencing, you will also learn the configuration tasks for audio and video conference bridges, Cisco TelePresence conferencing products (including TelePresence Server, TelePresence MCU, and TelePresence Conductor). The dial plan lessons are enhanced with URI dialing for endpoints.

Course Objectives:

- How the CUCM administrative and service GUIs work
- Activate, start, and stop CUCM services
- Configure base CUCM components, such as date time groups, device pools, Call Manager groups, and other common elements
- Add and delete phones manually and using auto registration
- Add users, assign them capabilities, and associate them with phones
- LDAP Integration including LDAP synchronization and LDAP authentication
- LDAP attribute mapping and filters
- Deploying IP Phone services
- Configure phone features: Music on Hold (MOH) and phone services
- Set up media resources to use for MOH and conferencing
- Build a dial plan including route patterns, route lists, and route groups supporting both the NANP and variable-length dial plans
- Deploy line/device Class of Service using partitions and calling search spaces for call blocking
- Call hunting (hunt lists) and call queuing configuration
- PSTN access methods, gateway vs. Cisco Unified Border Element (CUBE), and codec selection
- PSTN access using MGCP gateways, including route lists, route groups, and digit manipulation
- PSTN access using H.323 gateways including inbound and outbound dial peer selection
- H.323 gateway digit manipulation, codec selection, and class of restriction
- PSTN access using the CUBE and SIP trunks
- CUBE and URI dialing
- Media Resources including MOH, annunciators, and Media Termination Points (MTPs)
- Hardware and software audio and video conference bridges

- TelePresence MSE 800, TelePresence server, and TelePresence Conductor conferencing
- Quality of Service (QoS) and bandwidth calculations
- Best-Effort, IntServ, and DiffServ QoS models
- QoS classification and marking
- QoS policing and shaping

Course Outline:

1. Cisco Unified Communications Manager Introduction
2. Dial Plan Intro and Implementation of Single-Site On-Cluster Calling
3. Implementation of Single-site Off-Cluster Calling
4. Media Resources
5. Audio and Video Conferencing
6. Quality of Service

Who Should Attend:

- Network professionals who install, configure, and manage Cisco collaboration solutions

Provider: Cisco

Track: Collaboration

Course Acronym: CIPTV2

Course Title: Implementing Cisco Collaborative Devices, Part 2

Course Length: 5 days / 40 hours

Approximate Class Time: Monday-Friday, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-075 CIPTV2

Prerequisites: Valid CCNA Collaboration certification or any Cisco CCIE/CCDE certification

Course Overview:

This hands-on course prepares you for implementing a Cisco collaboration solution in a multisite environment. Focusing on Cisco Unified Communications Manager v10.x, Cisco VCS-C, and Cisco Expressway series, you will implement voice and video in a multisite network. You will learn the concepts and configuration elements of globalized call routing, URI dialing and call routing, Global Dial Plan Replication (GDPR) based on Cisco Inter-Cluster Lookup Service (ILS), Cisco Unified Survivable Remote Site Telephony (SRST), mobility features, and Call Admission Control (CAC). In consideration of mobile users connected to the public Internet, as well as Cisco TelePresence devices, you will also learn the concepts and configuration elements of Cisco VCS and its integration with Cisco Unified Communications Manager and Cisco Mobile Remote Access (MRA) on Cisco Expressway Series. Our next-generation Cisco Collaboration platform combines the Cisco Unified Computing System (UCS) with a VMware DRS cluster, distributing the load for individual classrooms across 16 UCS B-Series blades provisioned with 1.6 TB of RAM. Taking advantage of the improved performance of the UCS environment, we can deploy additional capabilities while improving classroom performance. Our Collaboration Lab environment provides valuable labs that generate high interest by Cisco Collaboration users.

Course Objectives:

- Issues in multisite deployments and their solutions
- Implement a variable-length on-net dial plan without globalization supporting multiple sites with overlapping extensions
- Use v7, 8, and 9.1 features, including local route groups and global transformations
- Transition to a globalized E.164 dial plan
- Issues with globalization in the NANP
- Implement a URI-based dial plan for multisite deployments
- Implement call-processing resiliency in remote sites using SRST, MGCP fallback, and CUCM Express
- Implement CAC to manage calling and prevent oversubscription of the IP WAN
- Implement enhanced locations call admission control
- Implement mobility features such as CUCM device mobility and CUCM extension mobility
- Explore the use of gatekeepers
- Configure and implement solutions to reduce bandwidth requirements in the IP WAN
- Implement Cisco VCS
- Implement Cisco Expressway series
- Implement users and endpoints in Cisco VCS Control
- Interconnecting and integrating Cisco Unified Communications Manager and Cisco VCS
- Implement a dial plan on Cisco VCS
- Implement Unified Communications and Mobile Remote Access (MRA)

- Implementing ILS
- Implement Global Dial Plan Replication (GDPR)
- Implementing Call Control Discovery and SAF

Course Outline:

1. Multisite Deployment Implementation
2. Centralized Call-Processing Redundancy Implementation
3. Bandwidth Management and CAC Implementation
4. Implementation of Features & Applications for Multisite Deployments
5. Cisco VCS and Expressway
6. EDPR and CCD

Who Should Attend:

- Network professionals who install, configure, and manage Cisco Collaboration solutions in multisite enterprises

Provider: Cisco

Track: Collaboration

Course Acronym: CTCOLLAB

Course Title: Troubleshooting Cisco IP Telephony and Video

Course Length: 5 days / 40 hours

Approximate Class Time: Monday-Friday, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-080 CTCOLLAB

Prerequisites: Valid CCNA Collaboration certification or any Cisco CCIE/CCDE certification

Course Overview:

This course equips you with the knowledge and skills required to troubleshoot Unified Communications Manager, Cisco VCS-C, Cisco Expressway, and Cisco TelePresence Management Suite. The troubleshooting approach utilizes a multiple site voice and video network. Techniques and procedures for troubleshooting are demonstrated and put into practice for the Cisco Collaboration Solution. Topics include methods for troubleshooting, triage approaches, tools and resources, and logical focused use of tools. Scenarios and trouble tickets will include call setup issues, Inter-cluster Lookup Service (ILS), mobility features, VCS control and VCS Expressway, as well as media resource and QoS issues. You will troubleshoot a network with: a different area code deployed simulating the North American Dial Plan (NADP), variable-length on-net dial plan supporting multiple sites with overlapping extensions, local route groups and global transformations, URI dialing, firewall traversal and video conferencing.

Course Objectives:

- A systematic methodology to troubleshoot Cisco UC systems
- Knowledge of tools and reports that help isolate UC system problems
- Troubleshoot common gateway and endpoint registration issues
- Troubleshoot CUCM availability, database replication & LDAP Integration issues
- Diagnose and resolve a call setup issue and troubleshoot Endpoint Registration
- Troubleshoot VCS Control and VCS Expressway Availability Issues
- Troubleshoot on-net multisite calling and investigate off-net calling issues
- Diagnose and resolve device mobility, extension mobility, and unified mobility issues
- Troubleshoot TelePresence Management Suite, MTP and Transcoder Issues
- Troubleshoot issues with audio and video conferences

Course Outline:

1. Introduction to Troubleshooting Cisco Collaboration Solutions
2. Cisco Unified Communications Manager Troubleshooting & Mobility Features
3. Cisco VCS Control and VCS Expressway Troubleshooting
4. Call Setup, ILS and GDPR Issues
5. Cisco TelePresence Management Suite, Voice Quality and Media Resource Issues

Who Should Attend:

- Network Administrators & Engineers and System & Field Engineers

Provider: Cisco

Track: Collaboration

Course Acronym: CAPPS

Course Title: Implementing Cisco Collaboration Applications

Course Length: 5 days / 40 hours

Approximate Class Time: Monday-Friday, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-085 CAPPS

Prerequisites: Valid CCNA Collaboration certification or any Cisco CCIE/CCDE certification

Course Overview:

In this hands-on course, you will practice configuring and integrating Cisco's call management and voice mail systems from scratch. You will work with Cisco Unity Connection, which is integrated with Cisco Unified Communications Manager (CUCM), and with Cisco Unity Express, integrated with CUCM Express. You'll also work with TelePresence components, such as the Cisco TelePresence Management Suite, Cisco Video Communications Servers, Cisco Unified IM and Presence Server, as well as Cisco Jabber for Windows. In addition, emphasis will be placed on a Collaboration Instant Messaging and Unified Messaging environments. Cisco Prime Collaboration Provisioning will be demonstrated for common Moves, Adds, and Changes (MACs). This course features the following authorized content and software releases: Cisco Course v1.0, CUCM Software v10.5, Cisco Unity Connection Software v10.5 (2) and Cisco Prime Collaboration Provisioning v10.6. You will focus on voice mail administration and presence administration. You will learn how to add users, configure Class of Service, schedules, and distribution lists, and set up Auto Attendants for both systems. You'll connect your voice mail systems using Voice Profile for Internet Mail (VPIM) networking. You will also learn how to integrate the Cisco Instant Messaging and Presence with CUCM, deploy the Cisco Jabber client with desk phone control, and integrate Unity Connection for Jabber access. In addition, deployment of Cisco Collaboration Systems will be covered including Prime Collaboration, video infrastructure, Cisco TelePresence Management Suite, and Video Applications

Course Objectives:

- Integrate Cisco Unity Connection with CUCM
- Unity Connection System Settings, Schedules, and Distribution Lists
- Integrate Unity Connection with Microsoft Active Directory
- Use Cisco Unity Connection Partitions and Search Spaces
- Implement Cisco Unity Connection Call Management
- Build an Audiotext Application Using the Opening Greeting, Interview, and Call Handlers
- Configure Directory Call Handlers
- Configure Cisco Unity Connection Users, Class of Service, and Roles
- Set Up Message Notification
- Monitor and Troubleshoot Cisco Unity Connection and Cisco Unity Express
- Integrate Cisco Unity Express with CUCM Express
- Unity Express System Settings, Schedules, and Distribution Lists
- Configure Cisco Unity Express Users and Class of Service
- Unity Express Voice Mail Features, such as VoiceView and IMAP Messaging
- Configure the Cisco Unity Express AutoAttendant
- VPIM
- Cisco Unified Instant Messaging and Presence

- Configure CUCM for IM&P Integration
- Cisco Unified IM&P and How to implement Jabber
- Configure Jabber Clients for IM&P and Desk Phone Control
- Deploy IP Phone Messenger
- Configure Unity Connection Integration with Call Manager
- Troubleshoot Cisco Unified IM&P
- Deploy Cisco Collaboration Systems
- Configure and Deploy with Cisco Prime Collaboration
- Deploy a Video Infrastructure
- Deploy and Configure Cisco TMS
- Deploy and Configure Cisco VCS
- Deploy and Configure Cisco MediaSense

Course Outline:

1. Cisco Unity Connection
2. Cisco Unity Express
3. Cisco Unified IM and Presence Implementation
4. Video Provisioning and Integration in a Unified Communications Deployment

Who Should Attend:

- Network administrators and network engineers
- CCNP Collaboration candidates
- Systems engineers

Provider: Cisco
Track: Collaboration
Course Acronym: CIEC
Course Title: Cisco Internetworking Expert Certification Workshop
Course Length: 5 days / 40 hours
Approximate Class Time: Monday-Friday, 9:00am to 5:00pm
Tuition Fee: \$2,495
Mentoring Program: \$2,495
Exam: CCIE Collaboration Lab
Prerequisites: None

Course Overview:

The Cisco Expert-Level Training for Cisco CCIE Collaboration is the Cisco authorized training program that helps to develop collaboration network expertise. This blended learning program combines live instruction, hands-on lab practice, and peer interaction to develop voice, unified communications, and video network experts. The program is designed for collaboration networking professionals with three to five years of job experience. The program allows students to assess, learn, practice, review, and demonstrate new skills in an integrated environment. The program components are easily accessed from an internet portal and provides assessment results, performance feedback, and progress reports. The Cisco Expert-Level Program is sold and delivered worldwide by NC-Expert's CCIE certified instructors.

The 5-day live CIEC Workshop's materials are aligned to the most current CCIE Collaboration certification and the Workshop has been designed according to a set of formal learning objectives. Cisco Internetworking CIEC Workshop is an extensive hands-on lab classroom experience. The workshop teaches students how to use an efficient problem-solving process and options analysis. This live workshop is part of a blended learning curriculum that aids learners in preparation for the CCIE Collaboration Lab Exam. The CIEC workshop includes an 8-hour Performance Assessment, which is graded and returned with mentor feedback.

Course Objectives:

Prepare the candidate for the CCIE Collaboration Lab Exam

Course Outline:

Workshop Outline

- Quality of Service
- Voice Applications
- Globalized Call Routing
- Service Advertisement Framework and Call Control Discovery
- Enhanced Location CAC
- Media Resources and Codec Preferences
- SIP URI Dialing and Advanced SIP Deployments
- Intercluster Lookup Service
- Call-Routing Priorities
- Cisco EMCC

Lab Exercises

- QoS in a Collaboration Environment

- Implement and Troubleshoot Voice Messaging
- Implement and Troubleshoot IM and Presence
- Implement and Troubleshoot Customer Care
- Verify Globalized Call Routing
- Implement Call Control Discovery
- Implement Enhanced Location CAC
- Troubleshoot Media Resources
- Implement SIP URI Dialing and SIP Connectivity to Third-Party SIP Call Control Domains
- Implement Intercluster Lookup Service
- Verify Call Routing
- Implement Cisco EMCC
- Cisco 360 CCIE Collaboration Assessment Lab 1

Who Should Attend:

- Networking Engineers seeking to obtain CCIE Collaboration certification

Provider: Cisco

Track: Collaboration

Course Acronym: MOCK

Course Title: CCIE Collaboration - MOCK Lab Workshop

Course Length: 5 days / 40 hours

Approximate Class Time: Monday-Friday, 9:00am to 5:00pm

Tuition Fee: \$2,495

Mentoring Program: \$2,495

Exam: CCIE Collaboration Lab

Prerequisites: CIEC (Written)

Course Overview:

The Cisco Expert-Level Training for Cisco CCIE Collaboration is the Cisco-authorized training program that helps to develop collaboration network expertise. This blended learning program combines live instruction, hands-on lab practice, and peer interaction to develop voice, unified communications, and video network experts. The program is designed for collaboration networking professionals with three to five years of job experience. The program allows students to assess, learn, practice, review, and demonstrate new skills in an integrated environment. The program components are easily accessed from an internet portal and provides assessment results, performance feedback, and progress reports. This NC-Expert CCIE Collaboration MOCK Lab Workshop was developed by NC-Expert in conjunction with Cisco, and is the only official offering of its type to be available in the world.

NC-Expert's MOCK Lab Workshop prepares the candidate for the rigorous lab exam using a simulated lab environment. It also finely hones the technical skills that will be necessary for the exam. This greatly enhances the candidate's preparedness and potential for success in the lab environment. This exclusive Cisco-approved 5-day live workshop is aligned to the most current CCIE Collaboration certification and has been designed according to a set of formal learning objectives. NC-Expert's MOCK Lab Workshop is an intensive hands-on lab classroom experience. The workshop also continues to teach the candidates many of the soft skills they will need to succeed.

Course Objectives:

Prepare the candidate for the CCIE Collaboration Lab Exam

Course Outline:

- Lab Strategy
- Time Management
- Planning for Success
- Self-Evaluation Skills
- Preparing for the Lab Exam
- Simulated CCIE Collaboration Assessment Lab 1
- Review and Evaluation
- Simulated CCIE Collaboration Assessment Lab 2
- Review and Evaluation
- Simulated CCIE Collaboration Assessment Lab 3
- Review and Evaluation

Who Should Attend:

- Networking Engineers seeking to obtain CCIE Collaboration certification

Provider: Cisco
Track: CCNA Cyber Security
Course Acronym: SECFND
Course Title: Understanding Cisco Cybersecurity Fundamentals
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 210-250 SECFND
Prerequisites: None

Course Overview:

Gain the basic knowledge required to perform role of an entry-level cybersecurity analyst in a threat-centric security operations center. The Understanding Cisco Cybersecurity Fundamentals (SECFND) v1.0 course provides you with an understanding of network infrastructure devices, operations and vulnerabilities of the TCP/IP protocol suite, basic information security concepts, common network application operations and attacks, the Windows and Linux operating systems, and the types of data that are used to investigate security incidents. After completing this course, you will have basic knowledge that is required to perform the job role of an entry-level cybersecurity analyst in a threat-centric security operations center.

Course Objectives:

- Describe, compare and identify various network concepts
- Describe and compare fundamental security concepts
- Describe network applications and the security challenges
- Understand basic cryptography principles & Fundamentals of TCP/IP
- Understand endpoint attacks, including interpreting log data to identify events
- Develop knowledge in security monitoring, including identifying sources, data and events
- Attack methods, security weaknesses, evasion methods, and remote versus local exploits

Course Outline:

1. TCP/IP and Cryptography Concepts
 - a. Understanding the TCP/IP Protocol & Network Infrastructure
 - b. Understanding Common TCP/IP Attacks & Basic Cryptography Concepts
2. Network Applications and Endpoint Security
 - a. Describing Information Security Concepts
 - b. Understanding Network Applications & Common Network Application Attacks
 - c. Understanding Windows Operating Systems & Linux Operating System Basics
 - d. Understanding Common Endpoint Attacks & Network & Endpoint Security
3. Security Monitoring and Analysis
 - a. Describing Security Data Collection and Event Analysis

Who Should Attend:

- Security Operations Center Security & Network Defense Analyst
- Computer Network Defense Infrastructure Support Personnel
- Future Incident Responders and Security Operations Center (SOC) personnel

- IT personnel looking to learn more about the area of cybersecurity operations

Provider: Cisco
Track: CCNA Cyber Security
Course Acronym: SECOPS
Course Title: Implementing Cisco Cybersecurity Operations
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 210-255 SECOPS
Prerequisites: None

Course Overview:

Begin a career working with associate-level cybersecurity analysts within security operations centers. This course focuses on the introductory-level skills needed for a SOC Analyst at the associate level, such as understanding basic threat analysis, event correlation, identifying malicious activity, and how to use a playbook for incident response. Learn how a Security Operations Center (SOC) functions and gain the introductory-level skills and knowledge required for success.

Course Objectives:

- Define a SOC and the various job roles in a SOC
- Understand SOC infrastructure tools and systems
- Learn basic incident analysis for a threat centric SOC
- Explore resources available to assist with an investigation
- Explain basic event correlation and normalization
- Describe common attack vectors
- Learn how to identify malicious activity
- Understand the concept of a playbook
- Describe and explain an incident respond handbook
- Define types of SOC Metrics
- Understand SOC Workflow Management system and automation

Course Outline:

- 1) Understand common security concepts
- 2) Basic Security Techniques used in SOC
- 3) Find threats on a Network Using a variety of popular Security tools

Who Should Attend:

- Security Operations Center Security Analyst
- Computer Network Defense Analyst
- Computer Network Defense Infrastructure Support personnel
- Future Incident Responders and Security Operations Center (SOC) personnel
- Students beginning a career and entering the cybersecurity field
- IT personnel looking to learn more about the area of cybersecurity operations

Provider: Cisco
Track: Data Center
Course Acronym: DCICN
Course Title: Introducing Cisco Data Center Networking
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 200-150 DCICN
Prerequisites: None

Course Overview:

Learn about Cisco Data Center technologies in order to provide entry-level data center personnel with the skills that they require to be successful. In this course, you will learn about the primary technologies that are used in the Cisco Data Center. The introductory level of knowledge that is taught in this course is targeted for individuals that will perform only the more basic configuration tasks.

Course Objectives:

- Ethernet communication functions and standards
- OSI and TCP/IP models
- Routing process on Nexus switches
- Compare storage connectivity options in the data center
- Fibre Channel name server and fabric login (FLOGI) process

Course Outline:

1. Network Protocols and Host-to-Host Communications
2. Basic Data Center Networking Concepts
3. Advanced Data Center Networking Concepts
4. Basic Data Center Storage
5. Advanced Data Center Storage
6. Cisco UCS Architecture

Who Should Attend:

- Ethernet communication functions and standards
- OSI and TCP/IP models
- Routing process on Nexus switches
- Compare storage connectivity options in the data center
- Fiber Channel name server and fabric login (FLOGI) process

Provider: Cisco
Track: Data Center
Course Acronym: DCICT
Course Title: Introducing Cisco Data Center Technologies
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 200-155 DCICT
Prerequisites: None

Course Overview:

In this course, you will be introduced to Cisco technologies and products that are deployed in the data center: network virtualization, network technologies, Unified computing, automation and orchestration, and the Cisco Application-Centric Infrastructure (ACI). The introductory level of knowledge that is provided in these courses is targeted for individuals who can perform basic configuration tasks. The hands-on lab exercises focus on configuring features on Cisco Nexus Operating System (Cisco NX-OS), Cisco Unified Computing System (Cisco UCS), and Cisco UCS Director.

Course Objectives:

- Configure Cisco UCS
- Configure Cisco data center virtualization
- Configure Cisco data center networking
- Configure Cisco automation and orchestration
- Verify Cisco ACI

Course Outline:

1. Cisco Data Center Network Virtualization
2. Cisco Data Center Network Technologies Configuration
3. Cisco Unified Computing Systems
4. Data Center Automation and Orchestration
5. Cisco Application-Centric Infrastructure

Who Should Attend:

- Network designers, administrators, engineers, and managers
- Storage administrators
- Server administrators
- Program managers
- Project managers
- Systems engineers

Provider: Cisco
Track: Data Center
Course Acronym: DCUCI
Course Title: Implementing Cisco Data Center Unified Computing
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 300-175 DCUCI
Prerequisites: CCNA Data Center or any CCIE certification

Course Overview:

Learn how to install, configure, manage, and troubleshoot Cisco Unified Computing System B-Series blade servers and C-Series rack servers in a virtualized data center environment. The focus of this skills-building course is on deploying, securing, operating, and maintaining the Cisco Unified Computing System (UCS) and UCS C-Series Rack Servers for use in data centers. The extensively hands-on course covers configuring and managing Cisco UCS servers using unified I/O networking for LAN and SAN connectivity, virtualizing server hardware identifiers to enable rapid recovery of server operating system images, automating UCS deployments using UCS Central Software and Cisco Integrated Management Controller (IMC) Supervisor, configuring fault tolerance, implementing role-based access control (RBAC), backing up and restoring system configurations, and using the monitoring and troubleshooting tools in Cisco UCS Manager and Cisco IMC.

Course Objectives:

- Install UCS B-Series system & deploy service profiles using pooled identities
- service profile templates
- Configure the UCS B-Series for deployments using iSCSI and configure B- and C-Series systems for deployments using Fibre Channel for regular data access and booting
- Configure & implement security mechanisms such as RBAC with Organizations and Locales, LDAP
- integration, trusted points, and key rings
- Configure and implement monitoring with syslog and Call Home
- Manage UCS Manager domains with UCS Central, manage multiple C-Series servers with Cisco IMC
- Supervisor, and interact with the UCS Manager XML API

Course Outline:

1. Cisco Unified Computing System Implementation and System Automation
2. SAN Storage Implementation for Cisco Unified Computing System
3. Security Implementation, Operations and Maintenance for Unified Computing System

Who Should Attend:

- System engineers and technicians who implement Cisco UCS B-Series Blade Servers and Cisco UCS C-Series Rack-Mount Servers, admins, managers, designers and engineers

Provider: Cisco
Track: Data Center
Course Acronym: DCII
Course Title: Implementing Cisco Data Center Infrastructure
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 300-165 DCII
Prerequisites: CCNA Data Center or any CCIE certification

Course Overview:

Implementing Cisco Data Center Infrastructure (DCII) v6.0 is a five-day course that is designed to help you prepare for the Cisco CCNP® Data Center certification and for professional-level data center roles. The focus of this skills-building course is implementation of LAN, SAN, and Data Center Unified Fabric using Cisco MDS switches, Cisco Nexus switches, and Cisco Nexus 2000 Series Fabric Extenders (FEXs). The course provides rich, hands-on experience of implementing Cisco data center infrastructure. Learn how to implement data center components such as Cisco Nexus and MDS switches as well as the Cisco Nexus Fabric Extenders.

Course Objectives:

- Configure RSTP, MST, and port channels and implement Cisco Fabric Path, OTV, VXLAN, and LISP
- Configure first-hop redundancy, routing, and multicast in the data center
- Configure user management and implement system security features on Nexus switches
- Perform basic Fibre Channel configuration, manage Fibre Channel domains, and implement Fibre Channel port security and binding
- Configure FCoE
- Configure distributed device aliases, zoning, NPV, and FCIP
- Configure system management and infrastructure monitoring

Course Outline:

1. Data Center Protocols, Infrastructure Security and Storage Fabric
2. FCoE Unified Fabric
3. Layer 3 Switching Features in the Data Center
4. Data Center Infrastructure Storage Services
5. Data Center Infrastructure Maintenance, Management and Operations

Who Should Attend:

- Systems and field engineers, consulting systems engineers, technical solutions architects, and Cisco integrators and partners who install and implement the Cisco Nexus 7000 and 5000 Series switches and the Cisco Nexus 2000 Series fabric extenders
- Data center engineers and managers, program managers, and project managers

Provider: Cisco

Track: Data Center

Course Acronym: DCVAI

Course Title: Implementing Cisco Data Center Virtualization and Automation

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-170 DCVAI

Prerequisites: CCNA Data Center or any CCIE certification

Course Overview:

Learn how to virtualize and program data centers as well as implement the Cisco Application Centric Infrastructure (ACI). In this course, you will prepare for the Cisco CCNP Data Center certification exam and for professional-level data center roles. The focus of this skills-building course is on the implementation and deployment automation of Cisco Application Centric Infrastructure (ACI) and Cisco Nexus switches. The course provides rich, hands-on experience in building a data center solution based on Cisco ACI.

Course Objectives:

- Implement infrastructure virtualization solutions, such as VDC, VRFs, Cisco Nexus 1000v, and Cisco AVS
- Identify programmability methods and program Cisco Nexus switches using XML, Python, and NXAPI
- Implement a Cisco ACI solution that provides fabric connectivity to bare-metal hosts, virtual machines, and external Layer 2 and Layer 3 domains
- Integrate Cisco ACI with virtual machine managers, such as VMware vCenter
- Enforce application policies in intra- and inter-tenant scenarios
- Deploy Cisco AVS and microsegmentation
- Program Cisco ACI using Python, RESTful APIs, and Arya
- Orchestrate Cisco ACI using the Cisco UCS Director
- Insert Layer 4 - Layer 7 services into the Cisco ACI fabric
- Monitor Cisco ACI deployment using atomic counters and other monitoring tools

Course Outline:

1. Infrastructure Virtualization Implementation & NX-OS Configuration Automation
2. Application Centric Infrastructure, Networking and Monitoring & Programmability
3. Cisco ACI Constructs and ACI Enhanced Features

Who Should Attend:

- Network Administrators & Engineers and System & Field Engineers
- Technical Solution Architects, Data Center Engineers and Managers
- Program and Project Managers

Provider: Cisco
Track: Data Center
Course Acronym: DCID
Course Title: Designing Cisco Data Center Infrastructure
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 300-160 DCID
Prerequisites: CCNA Data Center or any CCIE certification

Course Overview:

In this course, you will learn about designing data centers with Cisco components and technologies. The course covers network designs with virtualization, Layer 2 and Layer 3 technologies, routing protocols, and data center interconnect design options. Also covered are device virtualization technologies such as virtual data centers and network function virtualization with virtual appliances including virtual switches, virtual routers, and virtual firewalls. Storage and SAN design is covered, with explanation of Fibre Channel networks and Cisco Unified Fabric. Design practices for the Cisco Unified Computing System (UCS) solution based on Cisco UCS B-Series and C-Series servers and Cisco UCS Manager are also covered. Network management technologies include UCS Manager, Cisco Prime Data Center Network Manager, and Cisco UCS Director.

You Will Learn:

- Layer 2 switching and Layer 3 forwarding in a data center, including cabling and rack design for the access, aggregation, and core layers
- Design vPC, Cisco FabricPath, OTV, and LISP in customer scenarios and describe management options in the LAN
- Hardware virtualization and FEX technologies
- Compare the Cisco Nexus 1000v with VMFEX designs
- Data center security threats and Cisco Virtual Application Container Services for IaaS
- Management and automation options for the data center infrastructure
- Storage and RAID options
- Fibre Channel and its architecture
- Design Fibre Channel and FCoE networks along with management options
- Cisco UCS C-Series, M-Series
- Cisco B-Series servers with connectivity and adapter options
- Design the resource parameters for a UCS domain

Course Outline:

1. Data Center Network Connectivity and Infrastructure Design
2. Data Center Storage Network Design
3. Data Center Compute Connectivity and Resource Parameters Design

Who Should Attend:

- Data Center Designers

- Administrators
- Engineers
- Project Managers

Provider: Cisco
Track: Data Center
Course Acronym: DCIT
Course Title: Troubleshooting Cisco Data Center Infrastructure
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 300-180 DCIT
Prerequisites: CCNA Data Center or any CCIE certification

Course Overview:

Learn how to implement data center components such as Cisco Nexus 9000, 7000, 5000 and MDS Switches as well as the Nexus 2000 Fabric Extenders. In this course, you will prepare for the Cisco CCNP Data Center certification exam and for professional-level data center roles. The focus of this skills-building course is troubleshooting of LAN, SAN, Cisco Data Center Unified Fabric, Cisco Unified Computing System (UCS), and Cisco Application Centric Infrastructure (ACI). The course provides rich, hands-on experience in resolving problems on Cisco MDS switches, Cisco Nexus switches, Cisco fabric extenders (FEXs), Cisco UCS, and Cisco ACI.

Course Objectives:

- Troubleshoot Layer 2 technologies, such as STP, port channels, vPC, Cisco FabricPath, and FEX
- Troubleshoot first-hop redundancy, routing, and CFS in the data center
- Troubleshoot virtualization solutions, such as OTV, VRF, and VXLAN
- Troubleshoot storage area networks, including Fibre Channel, FCoE, zoning, NPV, and NPIV
- Troubleshoot data center unified computing

Course Outline:

1. Troubleshooting the Data Center LAN and SAN Network
2. Troubleshooting the Data Center Unified Computing and ACI

Who Should Attend:

- Data center administrators and engineers
- Network administrators and engineers
- Consulting systems engineers
- Cisco integrators and partners
- Data center designers and managers
- Network designers and managers
- Systems engineers

Provider: Cisco

Track: Design

Course Acronym: DESGN

Course Title: Designing for Cisco Internetwork Solutions

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 200-310 DESGN

Prerequisites: A valid CCENT, CCNA Routing and Switching, or any CCIE certification

Course Overview:

In this 5-day course, you will gain the skills to design efficient and effective networks.

Course Objectives:

- How to identify designed requirements and characterize (baseline) the existing network
- Principles of network design and the guidelines for building a network design solution
- How the Enterprise Composite Network model simplifies the complexity of today's networks
- Design an Enterprise Campus in a hierarchical modular fashion using Cisco Borderless Networks and modular design
- Design Enterprise Campus and Enterprise Edge networks
- Select the appropriate Network Management Solution
- Design the WAN and branch office
- Design a network addressing plan for IPv4 and IPv6
- Select optimal routing protocols for the network
- Design a modern data center using Cisco and industry best practices
- Evaluate security solutions for the network
- Design Voice, Video, and Collaboration solutions
- Design a wireless solution using lightweight access points & Wireless LAN Controller
- Understand the role of software defined networks in a design
- All topics on the CCDA certification exam
- Test-taking tips and techniques

Course Outline:

1. Applying a Methodology to Network Design with Network Design Objectives
2. Campus and Data Center Design Considerations
3. Enterprise Network Design & Expanding the Existing Network
4. Internal Routing and Connecting to the Internet
5. IP Addressing Design & Introduction to Software-Defined Networking

Who Should Attend:

- Network engineers and architects
- Systems administrators and network designers
- Anyone who wants CCDA certification
- IT managers wanting greater skill in network design

Provider: Cisco

Track: Design

Course Acronym: ROUTE

Course Title: Implementing Cisco IP Routing

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-101 ROUTE

Prerequisites: Valid CCDA & CCNA Routing and Switching certifications, or valid CCDA & CCNP Routing and Switching certifications, or any valid CCIE/CCDE certification

Course Overview:

In this course, you will gain the knowledge and skills needed to plan, implement, and monitor a scalable routed network. You will focus on routing protocols for both IPv4 and IPv6: EIGRP and OSPF for an enterprise and BGP for enterprise Internet connectivity. You will also learn how to redistribute routes, implement path control, and secure Cisco routers.

1. Describe routing protocols, different remote connectivity options, and their impact on routing and implementing RIPng
2. Configure EIGRP in IPv4 and IPv6 environments
3. Configure OSPF in IPv4 and IPv6 environments
4. Implement route redistribution using filtering mechanisms
5. Implement path control using policy-based routing and IP SLA
6. Implement enterprise Internet connectivity
7. Secure Cisco routers according to best practices and configure authentication for routing protocols

Course Objectives:

- Describe routing protocols, different remote connectivity options, and their impact on routing and implementing RIPng
- Configure EIGRP in IPv4 and IPv6 environments
- Configure OSPF in IPv4 and IPv6 environments
- Implement route redistribution using filtering mechanisms
- Implement path control using policy-based routing and IP SLA
- Implement enterprise Internet connectivity
- Secure Cisco routers according to best practices
- Configure authentication for routing protocols

Course Outline:

- Basic Network and Routing Concepts
- EIGRP Implementation
- OSPF Implementation
- Configuration of Redistribution
- Path Control Implementation
- Enterprise Internet Connectivity
- Routers and Routing Protocol Hardening

Labs:

- RIPng
- Basic EIGRP
- EIGRP Topology Table
- EIGRP Stub Routing
- EIGRP Summarization
- EIGRP Load Balancing
- EIGRP for IPv6 Configuration
- Named EIGRP Configuration
- OSPF Configuration Introduction
- Link-State Database
- OSPF Path Selection
- OSPF Route Summarization
- OSPF Stub Areas
- OSPFv3
- Basic Redistribution
- Manipulate Redistribution
- Manipulate Redistribution Using Route Maps
- Cisco Express Forwarding
- PBR
- NAT Virtual Interface
- IPv6 Internet Connectivity
- BGP Configuration
- BGP Path Selection
- BGP for IPv6
- EIGRP Authentication
- OSPF Authentication

Who Should Attend:

Any IT engineer interested in obtaining certifications in either CCDP or CCNP Routing and Switching.

Provider: Cisco

Track: Design

Course Acronym: SWITCH

Course Title: Implementing Cisco IP Switched Networks

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-115 SWITCH

Prerequisites: Valid CCDA & CCNA Routing and Switching certifications, or valid CCDA & CCNP Routing and Switching certifications, or any valid CCIE/CCDE certification

Course Overview:

In this course, you will gain the knowledge and skills needed to create an efficient and expandable enterprise network. You will focus on Layer 2 and multilayer switch functions including VLANs, trunks, inter-VLAN routing, port aggregation, spanning tree, first hop redundancy, as well as network security and high availability features.

- Describe the hierarchical campus structure, basic switch operation, use of SDM templates, PoE, and LLDP
- Implement VLANs and trunks, explain VTP, implement DHCP in IPv4 and IPv6 environments, and configure port aggregation
- Implement and optimize the STP mechanism that best suits your network: PVST+, Rapid PVST+, or MST
- Configure routing on a multilayer switch
- Configure NTP, SNMP, IP SLA, and port mirroring, and verify StackWise and VSS operation
- Implement first-hop redundancy in IPv4 and IPv6 environments
- Secure the campus network according to recommended practices

Course Objectives:

- Describe the hierarchical campus structure, basic switch operation, use of SDM templates, PoE, and LLDP
- Implement VLANs and trunks, explain VTP, implement DHCP in IPv4 and IPv6 environments, and configure port aggregation
- Implement and optimize the STP mechanism that best suits your network: PVST+, Rapid PVST+, or MST
- Configure routing on a multilayer switch
- Configure NTP, SNMP, IP SLA, and port mirroring, and verify StackWise and VSS operation
- Implement first-hop redundancy in IPv4 and IPv6 environments
- Secure the campus network according to recommended practices

Course Outline:

- Basic Concepts and Network Design
- Campus Network Architecture
- Spanning Tree Implementation
- Inter-VLAN Routing

- High-Availability Networks
- First Hop Redundancy Protocol Implementation
- Campus Network Security

Labs:

- Investigating the CAM
- VLANs and Trunks
- VTP Operation
- DHCP
- Obtaining IPv6 Addresses Dynamically
- EtherChannel Configuration and Load Balancing
- Discovering and Modifying STP Behavior
- Root Guard
- MST
- Routing with an External Router
- Routing on a Multilayer Switch
- NTP Configuration
- IP SLA Echo Configuration
- Configuring and Tuning HSRP
- VRRP and Spot the Differences from HSRP
- Configure GLBP
- Port Security

Who Should Attend:

- Any IT engineer interested in obtaining certifications in either CCDP or CCNP Routing and Switching.

Provider: Cisco

Track: Design

Course Acronym: ARCH

Course Title: Designing Cisco Network Service Architectures

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-320 ARCH

Prerequisites: Valid CCDA & CCNA Routing and Switching certifications, or valid CCDA & CCNP Routing and Switching certifications, or any valid CCIE/CCDE certification

Course Overview:

Gain the knowledge necessary to design converged enterprise networks and learn additional concepts including enterprise campus, data center, e-commerce, IP addressing and routing, security solutions, VPNs, IP multicast, and security in a borderless cloud environment. In this course, you will learn the conceptual, intermediate, and detailed design of a network infrastructure that supports desired network solutions over intelligent network services in order to achieve effective performance, scalability, and availability. You will learn how to apply Cisco network solution models and recommended design practices, to provide viable and stable enterprise internetworking solutions. You will learn concepts necessary to design converged enterprise networks and will cover enterprise campus, data center, e-commerce, IP addressing and routing, VPNs, IP multicast, and security in a borderless cloud environment.

Course Objectives:

- Cisco network architectures for the Enterprise and how this Cisco design methodology addresses enterprise network needs for performance, scalability, and availability
- Advanced Cisco structured design principles building on concepts covered in DESGN 3.0
- Enterprise campus network designs and data center Integration
- Enterprise edge and remote user infrastructure and VPN designs
- Designing security services and designing for high availability (HA)
- Advanced EIGRP, OSPF, and IS-IS routing, BGP routing and WAN design
- SDN and APIC-EM (designing software defined networks)
- Transitioning to IPv6 and designing IP multicast

Course Outline:

1. Enterprise Connectivity and High-Availability
2. BGP Design and Wide Area Network Design
3. Enterprise Data Center Integration
4. Designing Security Services and QoS for Optimized User Experience
5. Transition to IPv6 and IP Multicast Design

Who Should Attend:

- Pre- and post-sales network engineers that are involved in network design, planning, and implementation

- Network administrators and designers that are responsible for designing and implementing the enterprise network

Provider: Cisco
Track: Data Center
Course Acronym: CCDE
Course Title: Cisco Certified Design Expert
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 352-011 CCDE Practical
Prerequisites: 352-001 CCDE Written Exam pass

Course Overview:

You will learn expert level concepts for designing a Cisco environment such as network design principles and best practices, along with techniques that will improve your approach to strategic design. The practical network design scenarios in this course will mirror the same formats used in the exam.

Course Objectives and Outline:

- Design Comparison Charts
- Layer 2 Design
- Network Design Best Practices
- OSPF Design
- IS-IS Design
- EIGRP Design
- BGP Design
- Quality of Service Design
- Multicast Design
- MPLS Design
- IPv6 Design
- VPN Design
- CCDE Practical Scenarios

Who Should Attend:

- Networking Engineers seeking to obtain CCIE Collaboration certification

Provider: Cisco

Track: Routing & Switching

Course Acronym: ICND1

Course Title: Interconnecting Cisco Network Devices, Part 1

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 100-105 ICND1

Prerequisites: None

Course Overview:

In this course, you will learn how to install, operate, configure, and verify a basic IPv4 and IPv6 network, including configuring a LAN switch, configuring an IP router, managing network devices, and identifying basic security threats. The goal of the course is to provide you with the knowledge and skills necessary to install, configure, and operate a small- to medium-sized network. This class provides the foundational understanding of network Layers 1 through 3 that are applicable to core routing and switching plus other advanced technologies. Several topics have been added including; understanding the interactions and network functions of firewalls, wireless controllers and access points, along with additional focus on IPv6 and basic network security.

Course Objectives:

- Obtain the foundational understanding of network layers 1-3 that are applicable to core routing and switching plus other advanced technologies
- Develop basic routing and switching networking skills to configure, monitor, and troubleshoot Cisco networks for increased effectiveness and optimal performance within SMB settings
- Understand the network functions of firewalls, wireless controllers and access points
- Support Cisco network deployments and maintain these services in an on-going operational network

Course Outline:

1. Building a Simple Network
2. Establishing Internet Connectivity
3. Summary Challenge
4. Building a Medium Sized Network
5. Network Device Management and Security
6. Summary Challenge
7. Introducing IPv6

Who Should Attend:

- Network administrators & engineer associate
- Network support engineers
- Network specialist & analyst engineers

Provider: Cisco

Track: Routing & Switching

Course Acronym: ICND2

Course Title: Interconnecting Cisco Network Devices, Part 2

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition: \$2,495

Exam: 200-105 ICND2

Prerequisites: ICND1 exam pass

Course Overview:

In this course, you will learn how to install, configure, operate, and troubleshoot a small enterprise network. You will continue to build core routing and switching skills to successfully operate a small to medium-size enterprise branch network and prepare for the CCNA Routing and Switch certification. Key additions to this latest revision include; understanding of Quality of Service (QoS) elements and their applicability, how virtualized and cloud services will interact and impact enterprise networks, along with an overview of network programmability, and the related controller types and tools that are available to support software defined network architectures.

Course Objectives:

- Operate a medium-sized LAN with multiple switches, supporting VLANs, trunking/spanning tree
- Troubleshoot IP connectivity
- Configure and troubleshoot EIGRP in an IPv4 environment, and configure EIGRP for IPv6
- Configure and troubleshoot OSPF in an IPv4 environment and configure OSPF for IPv6
- Characteristics, functions, and components of a WAN
- How device management can be implemented using the traditional and intelligent ways

Course Outline:

1. Implementing Scalable Medium-Sized Networks
2. Troubleshooting Basic Connectivity
3. Implement an EIGRP-Based Solution
4. Summary Challenge
5. Implement a Scalable OSPF-Based Solution
6. Wide-Area Networks
7. Network Device Management
8. Summary

Who Should Attend:

- Network administrators & engineer associate
- Network support engineers
- Network specialist & analyst engineers

Provider: Cisco

Track: Routing & Switching

Course Acronym: CCNAX

Course Title: Interconnecting Cisco Network Devices, Accelerated

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 200-125 CCNAX

Prerequisites: None

Course Overview:

In this 5 Day course, you will learn how to install, operate, configure, and troubleshoot basic IPv4 and IPv6 networks, including configuring a LAN switch, configuring an IP router, identifying basic security threats, understanding redundant topologies, troubleshooting common network issues, connecting to a WAN, configuring EIGRP and OSPF in both IPv4 and IPv6, understanding wide-area network technologies, and getting familiar with device management and Cisco licensing. Some key additions to this latest revision include an understanding of (QoS) elements and their applicability, how virtualized and cloud services will interact and impact enterprise networks, and an overview of network programmability with the related controller types and tools that are available to support software defined network architectures. You will learn about the interactions and network functions of firewalls, wireless controllers and access points, along with additional focus on IPv6 and basic network security. Labs use the virtual IOS environment with flexible topologies that reinforce concepts with hands-on, guided discovery and challenge labs that align to each lesson module.

Course Objectives:

- Prepare for the CCNA Routing and Switching certification
- Operate a medium-sized LAN with multiple switches, VLANs, trunking, and spanning tree
- Interactions and network functions of firewalls, wireless controllers and access points
- Develop core routing and switching networking skills to configure, monitor, and troubleshoot networks for increased effectiveness & optimal performance within SMB and Enterprise settings
- How device management can be implemented using the traditional and intelligent ways
- QoS, virtualization & cloud services, network programmability, access and core segments
- Support Cisco network deployments and maintain services in an on-going operational network.

Course Outline:

1. Network fundamentals and build simple LANs
2. Establish Internet connectivity & manage and secure network devices
3. Operate a medium-sized LAN with multiple switches, VLANs, trunking and spanning tree
4. Troubleshoot IP connectivity and describe how to configure and troubleshoot EIGRP in an IPv4 environment, and configure EIGRP for IPv6
5. Configure and troubleshoot OSPF in an IPv4 environment and configure OSPF for IPv6
6. Characteristics, functions, and components of a WAN
7. How device management can be implemented using the traditional and intelligent ways.

Who Should Attend:

- Network administrators, support engineers, network specialists and analysts
- Cisco channel partners and Individuals pursuing the CCNA Routing & Switching certification

Provider: Cisco
Track: Routing & Switching
Course Acronym: ROUTE
Course Title: Implementing Cisco IP Routing
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 300-101 ROUTE
Prerequisites: ICND1 and ICND2, or CCNAX

Course Overview:

In this course, you will gain the knowledge and skills needed to plan, implement, and monitor a scalable routed network. You will focus on routing protocols for both IPv4 and IPv6: EIGRP and OSPF for an enterprise and BGP for enterprise Internet connectivity. You will also learn how to redistribute routes, implement path control, and secure Cisco routers.

Course Objectives:

- Routing protocols, network technologies, and remote connectivity options
- RIPng in an IPv6 environment
- Technologies, operations, and metrics that EIGRP uses
- Configure and verify EIGRP in IPv4 and IPv6 environments including optimizing its behavior and named EIGRP configuration
- Multiarea OSPF including over different network types and how to optimize its database
- Configure and verify OSPFv2 in IPv4 environments and OSPFv3 in IPv4 and IPv6 environments
- Route redistribution and how it is implemented using distribute list, prefix list, and route map filtering mechanisms
- Use Cisco Express Forwarding for efficient Layer 3 packet forwarding
- Implement path control using policy based routing and IP Service Level Agreement (SLA)
- Establishing enterprise Internet connectivity for IPv4 and IPv6
- BGP for enterprise IPv4 and IPv6 Internet connectivity
- Secure Cisco routers according to best practices including the configuring routing protocol authentication

Course Outline:

1. Basic Network and Routing Concepts
2. EIGRP Implementation
3. OSPF Implementation
4. Configuration of Redistribution
5. Path Control Implementation
6. Enterprise Internet Connectivity
7. Routers and Routing Protocol Hardening

Who Should Attend:

- Support, Network and System Engineers and Technicians

- Network analysts and Senior network administrators

Provider: Cisco
Track: Routing & Switching
Course Acronym: SWITCH
Course Title: Implementing Cisco IP Switched Networks
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 300-115 SWITCH
Prerequisites: ICND1 and ICND2, or CCNAX

Course Overview:

In this course, you will gain the knowledge and skills needed to create an efficient and expandable enterprise network. You will focus on Layer 2 and multilayer switch functions including VLANs, trunks, inter-VLAN routing, port aggregation, spanning tree, first hop redundancy, as well as network security and high availability features.

Course Objectives:

- Components of the Cisco Enterprise Campus Architecture including the operation of Layer 2 and multilayer switches
- Switching Database Manager (SDM) templates and how they are used
- Implementing device features including LLDP and PoE
- VLANs and trunks and how VTP works
- Configuring a device to be a DHCP server and relay agent, for both IPv4 and IPv6
- Configuring Layer 2 and Layer 3 port aggregation
- Different types of spanning tree protocols and mechanisms, including STP, RSTP, and MST
- Implementing inter-VLAN routing on both a router and a multilayer switch
- Network high availability including NTP, SNMPv3, IP SLA, port mirroring, and switch virtualization
- First hop redundancy protocols for IPv4 and IPv6 including HSRP, VRRP, and GLBP
- Implementing network security features including port security, storm control, DHCP snooping, IP source guard, dynamic ARP inspection, VLAN ACLs, and private VLANs
- Using an external authentication server in your network, including implementing IEEE 802.1x

Course Outline:

1. Basic Concepts and Network Design
2. Campus Network Architecture
3. Spanning Tree Implementation
4. Configuring Inter-VLAN Routing
5. Implementing High Availability Networks
6. First Hop Redundancy Implementation
7. Campus Network Security

Who Should Attend:

- Network Support, Systems Engineers and Technicians

- Network Analysts
- Senior Network Administrators

Provider: Cisco

Track: Routing & Switching

Course Acronym: TSHOOT

Course Title: Troubleshooting & Maintaining Cisco IP Networks

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-135 TSHOOT

Prerequisites: ICND1 and ICND2, or CCNAX

Course Overview:

In this course, you will learn and practice techniques to monitor and troubleshoot routed and switched networks through extensive hands-on lab exercises. Troubleshooting methods, approaches, procedures, and tools are explored. A series of different organizations are introduced for each a set of troubleshooting scenarios that are presented. You will attempt to solve as many of the troubleshooting tickets as you can; the debrief includes review information that will help you further understand the specific issues raised in the scenarios.

Course Objectives:

- Troubleshooting methods, approaches, and procedures
- Recommended network maintenance practices
- Using basic and specialized troubleshooting tools
- Troubleshooting:
 - A redundant Internet gateway or redundant ISP fails to provide backup connectivity
 - OSPF, EIGRP and BGP issues, including redistribution
 - HSRP, VRRP, and GLBP issues
 - Ether Channel issues
 - Other issues including NTP, DNS, default routes, IP SLAs, AAA, and GRE
 - When headquarters or branch clients are unable to access internal devices or the Internet
 - When you are unable to connect to a network device using SSH or Telnet
 - When devices are unable to acquire a DHCP-provided address

Course Outline:

1. Tools and Methodologies of Troubleshooting
2. Troubleshooting at SECHNIK Networking Ltd.
3. Troubleshooting at TINC Garbage Disposal Ltd.
4. Troubleshooting at PILE Forensic Accounting Ltd.
5. Troubleshooting at Bank of POLONA Ltd.
6. Troubleshooting at RADULKO Transport Ltd.

Who Should Attend:

- Network, Support, System Engineers and Technicians
- Senior network administrators

- Anyone involved in planning, implementing, verifying, and troubleshooting switch-based solutions in enterprise networks

Provider: Cisco
Track: Routing & Switching
Course Acronym: CIERS1
Course Title: CCIE Routing & Switching Expert Workshop 1
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Mentoring 1: \$2,495
Exam: CCIE Routing & Switching Lab
Prerequisites: CCIE Written Exam pass

Course Overview:

This is a Cisco Endorsed and Authorized Course.

CCIE R&S Advanced Workshop (CIERS1) is part of the Cisco 360 Learning Program and teaches students how to use an expert-level, problem-solving process, including options analysis, to support complex Cisco routing and switching technologies and topologies.

The course goal is to develop an expert-level problem-solving process including options analysis to support complex Cisco routing and switching technologies and topologies. This is a highly intensive training, engaging students full time throughout the week.

This course is for technical professionals who are in the middle stages of preparing for the Cisco CCIE R&S Practical Lab Exam.

You will learn expert level concepts for deploying a Cisco routing and switching environment such as:

- Discuss your baseline status for Cisco CCIE® lab readiness
- Resolve expert-level Layer 2 and DMVPN task analysis, configuration and troubleshooting issues
- Resolve expert-level core task analysis, configuration, and troubleshooting issues
- Resolve expert-level BGP issues from both a configuration and troubleshooting perspective
- Resolve expert-level MPLS L3 VPN configuration tasks.
- Resolve expert-level multicast task analysis, configuration, and troubleshooting issues
- Resolve expert-level IP connectivity issues regardless of whether they involve IPv4 or IPv6
- Resolve expert-level router MQC QoS task analysis, configuration, and troubleshooting issues
- Resolve expert-level Network Services task analysis, configuration, and troubleshooting issues
- Resolve expert-level multitopic core and advanced task analysis, configuration, and troubleshooting issues

Who Should Attend:

- IT Professionals interested in achieving CCIE Routing and Switching

Provider: Cisco

Track: Routing & Switching

Course Acronym: CIERS2

Course Title: CCIE Routing & Switching Expert Workshop 2

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Mentoring 2: \$2,495

Exam: CCIE Routing & Switching Lab

Prerequisites: CCIE Routing & Switching Written Exam pass, and (recommended) CIERS1

Course Overview:

This is a Cisco Endorsed and Authorized NC-Expert Exclusive Course

Cisco CCIE R&S Advanced Workshop 2 (CIERS2) is designed to help you develop the skills necessary to pass the CCIE routing and switching Practical Lab exam in a simulated exam environment. You will ideally attend this workshop when you are within 1 month of your Practical Lab attempt. This Workshop will present you with graded labs and give you advanced feedback and one-on-one time with your mentor/instructor. We offer “tips and tricks” gathered from years of experience and will work with you to prepare you for the rigors of the Practical Lab exam itself. Once you are mentally prepared and have a basic planning strategy going into the exam, you are a long way along the road to success.

This course is for technical professionals who are in their final stages of preparing for the Cisco CCIE R&S Practical Lab Exam.

Who Should Attend:

- IT Professionals interested in achieving CCIE Routing and Switching

Provider: Cisco

Track: Security

Course Acronym: IINS

Course Title: Implementing Cisco IOS Network Security

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 210-260 IINS

Prerequisites: A valid CCENT, CCNA Routing and Switching, or any CCIE certification

Course Overview:

In this course, you will learn about the design, implementation, and monitoring of a comprehensive security policy using Cisco IOS security features and technologies as examples. You will also learn about security controls of Cisco IOS devices as well as a functional introduction to the Cisco Adaptive Security Appliance (ASA). Modern malware examples are included in this course as are cryptographic techniques using stronger hashing and encryption algorithms. Current versions of Cisco IOS, Cisco ASA, and Cisco AnyConnect are featured.

Course Objectives:

- Secure routing and switching infrastructure and common network security concepts
- Deploy basic authentication, authorization, and accounting services
- Deploy basic firewalling services & basic site-to-site and remote access VPN services
- Advanced security services, intrusion protection, content security & identity management
- Develop a network security policy to counter threats against information security
- Configure routers with Cisco IOS software security features
- Bootstrap the Cisco ASA Firewall for use in a production network
- Configure the Cisco ASA Firewall for remote access to Secure Sockets Layer (SSL) VPN
- Configure a Cisco IOS zone-based firewall (ZBF) to perform basic security operations
- Configure site-to-site VPNs using Cisco IOS features
- Configure security features on IOS switches to mitigate various Layer 2 & 3 attacks
- Implement line passwords, and enable passwords and secrets
- Examine authentication, authorization, and accounting (AAA) concepts and features using the local database as well as Cisco Secure ACS 5.2

Course Outline:

1. Security Concepts
2. Secure Network Devices
3. Layer 2 Security
4. Firewall & VPN
5. Advanced Topics

Who Should Attend:

- Network designers
- Network, systems, and security engineers
- Network and security managers

Provider: Cisco
Track: Security
Course Acronym: SISAS
Course Title: Implementing Cisco Secure Access Solutions
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 300-208 SISAS
Prerequisites: CCNA Security or any CCIE certification

Course Overview:

This course is part of the curriculum path leading to the Cisco Certified Network Professional Security (CCNP Security) certification. Additionally, it is designed to prepare security engineers with the knowledge and hands-on experience for deploying the Cisco Identity Services Engine (ISE) and 802.1X secure network access. You will acquire the foundational knowledge and capabilities to implement and managed network access security by utilizing Cisco ISE appliance product solution. You will gain hands-on experience with configuring various advance Cisco security solutions for mitigating outside threats and securing devices connecting to the network. At the end of the course, you will be able to reduce the risk to your IT infrastructures and applications using the Cisco ISE appliance feature and provide operational support identity and network access control.

Course Objectives:

- Cisco ISE architecture and access control capabilities
- 802.1X architecture, implementation, and operation
- Commonly implemented Extensible Authentication Protocols (EAPs)
- Implement public key infrastructure (PKI) with ISE
- Implement internal and external authentication databases
- Implement MAC Authentication Bypass (MAB)
- Implement web authentication, guest access, identity based authorization policies
- Implement ISE Posture service, ISE Profiling & TrustSec features
- Bring Your Own Device (BYOD) as it relates to ISE & Troubleshoot ISE

Course Outline:

1. Threat Mitigation through Identity Services
2. ISE Fundamentals
3. Advance Access Control
4. Web Authentication and Guest Access
5. Endpoint
6. Troubleshooting ISE

Who Should Attend:

- Network Security Engineers

Provider: Cisco
Track: Security
Course Acronym: SENSS
Course Title: Implementing Cisco Edge Network Security Solutions
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 300-206 SENSS
Prerequisites: CCNA Security or any CCIE certification

Course Overview:

This course is part of the curriculum path leading to the Cisco Certified Network Professional Security (CCNP Security) certification. Additionally, it is designed to prepare security engineers with the knowledge and hands-on experience to prepare them to configure Cisco perimeter edge security solutions utilizing Cisco switches, Cisco routers, and Cisco Adaptive Security Appliance (ASA) firewalls. You will acquire the foundational knowledge and capabilities to implement and manage security on Cisco ASA firewalls, Cisco routers with the firewall feature set, and Cisco switches. You will gain hands-on experience with configuring various perimeter security solutions for mitigating outside threats and securing network zones. At the end of the course, you will be able to reduce the risk to your IT infrastructures and applications using Cisco switches, Cisco ASA, and router security appliance feature, as well as provide detailed operations support for these products.

Course Objectives:

- Security threat landscape
- Implement Cisco modular network security architectures such as SecureX and TrustSec
- Deploy Cisco infrastructure management and control plane security controls
- Configure Cisco Layer 2 and Layer 3 data plane security controls
- Implement and maintain Cisco ASA Network Address Translations (NAT)
- Implement and maintain Cisco IOS Software NAT
- Designing and deploying Cisco Cyber Threat Defense solutions on a Cisco ASA utilizing access policy and application and identity-based inspection
- Implement Botnet Traffic Filters
- Deploy Cisco IOS Zone-Based Policy Firewalls (ZBFW)
- Configure and verify Cisco IOS ZBFW Application Inspection Policy

Course Outline:

1. Secure Design Principles
2. Deploying Network Infrastructure
3. Deploying NAT on Cisco IOS and Cisco ASA
4. Deploying Threat Controls on Cisco ASA
5. Deploying Threat Controls on Cisco IOS Software

Who Should Attend:

- Network Security Engineers

Provider: Cisco
Track: Security
Course Acronym: SIMOS
Course Title: Implementing Cisco Secure Mobility Solutions
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 300-209 SIMOS
Prerequisites: CCNA Security or any CCIE certification

Course Overview:

This course is part of the curriculum path leading to the Cisco Certified Network Professional Security (CCNP Security) certification. It prepares network security engineers with the knowledge and skills needed for protecting data traversing a public or shared infrastructure, such as the Internet, by implementing and maintaining Cisco VPN solutions. You will gain hands-on experience with configuring and troubleshooting remote access and site-to-site VPN solutions using Cisco ASA adaptive security appliances and Cisco IOS routers.

Course Objectives:

- Various VPN technologies and deployments as well as the cryptographic algorithms and protocols that provide VPN security
- Implement and maintain Cisco site-to-site VPN solutions
- Implement and maintain Cisco Flex VPN in point-to-point, hub-and-spoke, and spoke-to-spoke IPsec VPNs
- Implement and maintain Cisco clientless SSL VPNs
- Implement and maintain Cisco AnyConnect SSL and IPsec VPNs
- Implement and maintain endpoint security and dynamic access policies (DAP)

Course Outline:

1. Fundamentals of VPN Technologies and Cryptography
2. Deploying Secure Site-to-Site Connectivity Solutions
3. Deploying Cisco IOS Site-to-Site Flex VPN Solutions
4. Deploying Cisco AnyConnect VPNs
5. Deploying Endpoint Security and Dynamic Access Policies

Who Should Attend:

- Network Security Engineers

Provider: Cisco
Track: Security
Course Acronym: SITCS
Course Title: Implementing Cisco Threat Control Solutions
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 300-210 SITCS
Prerequisites: CCNA Security or any CCIE certification

Course Overview:

In this course, you will learn how to deploy Cisco's Email Security (ESA); Web Security (CWS, WSA); Advanced Malware Protection (AMP); and Next Generation Intrusion Prevention Systems (NGIPS). You will learn how to implement and manage security threat controls by leveraging the capabilities of Cisco's Fire POWER NGIPS, AMP, WSA, CWS, and ESA products and solutions. The hands-on labs enable to configure advanced Cisco security solutions for mitigating outside threats, and to secure traffic traversing the network and security systems.

Course Objectives:

- Cisco Web Security Appliance
- Cisco Cloud Web Security
- Cisco Email Security Appliance
- Advanced Malware Protection for Endpoints
- Cisco Fire POWER Next-Generation IPS
- Cisco ASA Fire POWER Services

Course Outline:

1. Cisco Web Security Appliance
2. Cisco Cloud Web Security
3. Cisco Email Security Appliance
4. Advanced Malware Protection for Endpoints
5. Cisco Fire POWER Next-Generations IPS
6. Cisco ASA Fire POWER Services

Who Should Attend:

- Engineers involved in the implementation and support of Cisco security solutions
- Engineers looking to achieve the Cisco Certified Networking Professional Security certification

Provider: Cisco

Track: Service Provider

Course Acronym: SPNGN1

Course Title: Building Cisco Service Provider Next-Generation Networks, Part 1

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 640-875 SPNGN1

Prerequisites: None

Course Overview:

Learn the main components of a network and how service provider networks function. In this course, you will cover the fundamentals of networking as it relates to service providers (SPs). You will learn how networks and network components function, and you'll learn about major network components and the OSI reference model.

Course Objectives:

- Use the host-to-host packet delivery process
- Issues that are related to increasing traffic on an Ethernet LAN
- Switched LAN technology solutions to Ethernet networking issues
- Reasons for extending the reach of a LAN and the methods that can be used
- Reasons for connecting networks with routers and how routed networks transmit data by using TCP/IP
- Function of WANs and the major devices of WANs
- Configure PPP encapsulation, static and dynamic routing, and NAT
- Tools used to manage a service provider network

Course Outline:

1. IP Fundamentals
2. Basic LAN Switching
3. Basic IP Routing
4. Connectivity Technologies, Network Management and Security

Who Should Attend:

- Cisco Build-Operate-Transfer partners who are focused on service provider NGN networks specific to entry-level network operations personnel.
- Service provider network operations organizations specific to entry-level network operations personnel

Provider: Cisco

Track: Service Provider

Course Acronym: SPNGN2

Course Title: Building Cisco Service Provider Next-Generation Networks, Part 2

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 640-878 SPNGN2

Prerequisites: None

Course Overview:

Learn the major concepts of a service provider network construction and the Cisco service provider IP NGN architecture. In this course, network engineers and technicians will gain the knowledge and skills necessary to implement and support a service provider network. You will focus on using Cisco switches and Cisco routers that are connected in LANs and WANs, and are typically found in the service provider network. You will learn to configure, verify, and troubleshoot the various Cisco networking devices. Through hands-on labs, you will gain practical skills on deploying Cisco IOS/IOS XE and Cisco IOS XR features to operate and support service provider network.

Course Objectives:

- Operation of IP and data network
- IPv4 and IPv6 addressing schemes
- Configure switched network and routed network technologies
- Configure IP services, operating systems and platforms
- Configure transport technologies, access and edge technologies
- Configure security in the network and network management
- MPLS, multicast, and high availability
- VPN technologies

Course Outline:

1. Service Provider Network Construction
2. Advanced LAN Switching
3. Internal Service Provider Traffic Forwarding
4. External Service Provider Routing
5. ACLs and IP Address Translation
6. Cisco Service Provider Platforms

Who Should Attend:

- Network administrators, engineers, managers, and systems engineers working in the service provider environment
- Network designers, project managers, and program managers
- Individuals preparing for CCNA SP certification

Provider: Cisco

Track: Service Provider

Course Acronym: SPROUT

Course Title: Deploying Cisco Service Provider Network Routing

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 642-883 SPROUT

Prerequisites: Valid CCNA Service Provider, CCNP, or any CCIE certification

Course Overview:

Learn the typical routing requirements and routing protocols used in service provider networks. In this course, you will learn how to use advanced routing techniques to implement scalability for Cisco routers that are connected to LANs and WANs.

Course Objectives:

- Service provider routing protocols
- Implement OSPF in the service provider network
- Implement integrated IS-IS in the service provider network
- Implement BGP in the service provider network
- Routing protocol pools and route manipulation
- Outputs are updated with the latest IOS, IOS XE, and IOS XR versions

Course Outline:

1. Service Provider Routing
2. Implement OSPF in the Service Provider Network
3. Implement Integrated IS-IS in the Service Provider Network
4. Implement BGP in the Service Provider Network
5. Routing Protocol Tools and Route Manipulation

Who Should Attend:

- Network administrators, engineers, and managers who would like to implement IP routing in service provider environments
- Systems engineers
- Network designers and project managers
- Individuals preparing for CCNP Service Provider certification

Provider: Cisco

Track: Service Provider

Course Acronym: SPADVROUTE

Course Title: Deploying Cisco Service Provider Advanced Network Routing

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 642-885 SPADVROUTE

Prerequisites: Valid CCNA Service Provider, CCNP, or any CCIE certification

Course Overview:

Gain the skills necessary to implement and support a service provider network. In this course, you will focus on using Cisco routers that are typically found in the service provider network. You will cover various technologies that are used to offer different services to customers, and you'll learn to configure, verify, and troubleshoot advanced Border Gateway Protocol (BGP) configuration, IP multicasting, and IPv6 transition mechanisms. Through hands-on labs, you will gain practical skills deploying Cisco IOS/IOS XE and Cisco IOS XR features to operate and support service provider network.

Course Objectives:

- Configure the provider network to support multiple BGP connections with customers and other autonomous systems
- Common routing and addressing scalability issues in the provider network
- Available BGP tools and features to secure and optimize the BGP routing protocol in a service provider environment
- IP multicast services and the technologies that are present in IP multicasting
- PIM-SM as the most current scalable IP multicast routing protocol
- Service provider IPv6 transition implementations

Course Outline:

1. Service Provider Connectivity with BGP
2. Scaling Service Provider Networks
3. Secure and Optimize BGP
4. Multicast
5. Intra-domain and Inter-Domain Multicast Routing
6. Service Provider IPv6 Transition Implementations

Who Should Attend:

- Network administrators, engineers, and managers who would like to implement IP routing in service provider environments
- Systems engineers
- Individuals preparing for CCNP Service Provider certification

Provider: Cisco

Track: Service Provider

Course Acronym: SPCORE

Course Title: Implementing Cisco Service Provider Next-Generation Core Network Services

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 642-887 SPCORE

Prerequisites: Valid CCNA Service Provider, CCNP, or any CCIE certification

Course Overview:

Learn to use MPLS and implement QoS as you prepare for CCNP Service Provider certification. In this course, you will be introduced to the concepts of Multiprotocol Label Switching (MPLS) and its implementation. You will learn about the MPLS Traffic Engineering (MPLS TE) services built on the MPLS technology, and you'll learn to use the principles of quality of service (QoS) and QoS with MPLS to implement advanced features and functions. You will focus on the technology issues of MPLS, the best practices for implementing QoS from the service provider perspective, and how to configure those features and functions in an existing routed environment. Through hands-on labs, you will gain practical skills on deploying Cisco IOS/IOS XE and Cisco IOS XR features to operate and support service provider networks.

Course Objectives:

- Features of MPLS and how MPLS labels are assigned and distributed
- Requirements for traffic engineering in modern networks that must attain optimal resource utilization
- QoS and the need to implement it
- Classify and mark network traffic to implement an administrative policy requiring QoS
- Cisco QoS queuing mechanisms used to manage network congestion
- Traffic policing and shaping, including token bucket, dual token bucket, and dual-rate policing

Course Outline:

1. MPLS and MPLS TE
2. QoS in the Service Provider Network and Classification & Marking
3. QoS Congestion Management and Avoidance
4. QoS Traffic Policing and Shaping

Who Should Attend:

- Network administrators, engineers, and managers who want to implement MPLS and MPLS TE in the core portion of service provider environments and ensure QoS in the service provider backbone
- Systems engineers
- Individuals preparing for CCNP Service Provider certification

Provider: Cisco

Track: Service Provider

Course Acronym: SPEDGE

Course Title: Implementing Cisco Service Provider Next-Generation Edge Network Services

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 642-889 SPEDGE

Prerequisites: Valid CCNA Service Provider, CCNP, or any CCIE certification

Course Overview:

Learn to use service provider VPN solutions. In this course, you will learn how to implement Virtual Private Networks (VPNs) within their networks and how to enable service provider point of presence (POP) to provide Layer 2 and Layer 3 VPNs. Through hands-on labs, you will gain practical skills on deploying Cisco IOS/IOS XE and Cisco IOS XR features to operate and support service provider network.

Course Objectives:

- VPN technologies used in the service provider environment
- Multiprotocol Label Switching (MPLS) VPN peer-to-peer architecture
- Steps to provide MPLS Layer 3 VPN service in service provider networks
- Use the MPLS Layer 3 VPN model to implement managed services and Internet access
- Layer 2 VPNs and Ethernet services
- Traffic policing and shaping, including token bucket, dual token bucket, and dual-rate policing

Course Outline:

1. VPN Technologies
2. MPLS Layer 3 VPNs
3. Special Connectivity in MPLS Layer 3 VPNs
4. MPLS IPv6 and Interdomain Solutions
5. Layer 2 VPNs

Who Should Attend:

- Network administrators, engineers, and managers who would like to implement MPLS VPN service in their networks
- Systems engineers
- Individuals preparing for CCNP Service Provider certification

Provider: Cisco

Track: Wireless

Course Acronym: WIFUND

Course Title: Implementing Cisco Wireless Network Fundamentals

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 200-355 WIFUND

Prerequisites: A valid CCENT, CCNA Routing and Switching, or any CCIE certification

Course Overview:

This course helps prepare you for the associate-level CCNA Wireless certification, a prerequisite to CCNP Wireless certification. You will learn how to design, install, configure, monitor, and conduct basic troubleshooting tasks of a Cisco Wireless LAN (WLAN) in SMB and enterprise installations.

Course Objectives:

- Basic RF principles and characteristics
- WLAN security methods and access with differing client devices
- Cisco WLAN architecture and the underlying infrastructure used to support it
- Implement centralized wireless access networks using AireOS or IOS XE WLAN controllers
- Implement converged access wireless access network using IOS XE converged access switches and WLAN controllers
- Implement small and remote wireless networks using FlexConnect, autonomous, and cloud architectures
- Perform basic WLAN maintenance and troubleshooting
- Requirements of a WLAN design

Course Outline:

1. Wireless Fundamentals
2. Security and Client Access
3. Define the Cisco Wireless Network Architecture
4. Implement Converged Wireless Access
5. Implement Small and Remote Wireless Access
6. WLAN Maintenance and Troubleshooting
7. WLAN Design

Who Should Attend:

- Network engineers, network administrators, network managers, and system engineers
- WLAN designers, planners, implementers, and optimizers
- Anyone wishing to attain CCNA Wireless or CCNP Wireless certification

Provider: Cisco

Track: Wireless

Course Acronym: WIDESIGN

Course Title: Designing Cisco Wireless Enterprise Networks

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-360 WIDESIGN

Prerequisites: Valid Cisco CCNA Wireless or any Cisco CCIE certification

Course Overview:

In this course, you will learn how to design a Cisco wireless network from initial customer contact to post-deployment activities. In addition, you will learn to use the appropriate tools to assist in wireless design and management. This course is targeted toward wireless network engineers with at least three years of experience in the networking field. The Cisco CCNP Wireless certification addresses the need for designing, implementing, and operating Cisco wireless networks and mobility infrastructures.

Course Objectives:

- Customer Wi-Fi design process
- Design for data coverage
- Design for voice and real-time applications
- Design for location and Cisco CMX
- Design for Wi-Fi beyond the enterprise campus
- How to conduct a site survey

Course Outline:

1. Determine Customer Wi-Fi Design Process
2. Design for Data Coverage
3. Design for Voice and Real-Time Applications
4. Design for Location and Cisco CMX
5. Design for Wi-Fi Beyond the Enterprise Campus
6. Conduct a Site Survey

Who Should Attend:

- Wireless network engineers with at least 3 years of experience in the networking field

Provider: Cisco

Track: Wireless

Course Acronym: WIDEPLOY

Course Title: Deploying Cisco Wireless Enterprise Networks

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-365 WIDEPLOY

Prerequisites: Valid Cisco CCNA Wireless or any Cisco CCIE certification

Course Overview:

In this course, you will learn how to deploy wireless networks using Cisco controller and unified switching architectures policies and best practices, as well as ensure the proper implementation of mobility standards and proper configuration of all aspects of wireless components. Hands-on labs reinforce concepts taught, including deployment of Cisco AireOS 8.0, Cisco Prime Infrastructure Release 2.2, as well as the Cisco Mobility Services Engine Release 8.0 features. This Cisco CCNP Wireless certification addresses the need for designing, implementing, and operating Cisco Wireless networks and mobility infrastructures.

Course Objectives:

- Deploy a Wi-Fi infrastructure
- Configure advanced capabilities in data designs
- Configure advanced capabilities in voice and real-time application designs
- Configure advanced capabilities in location designs
- Configure advanced capabilities in outdoor and high-density designs

Course Outline:

1. Deploy a Wi-Fi Infrastructure
2. Configure Advanced Capabilities in Data Designs
3. Configure Advanced Capabilities in Voice and Real-Time Application Designs
4. Configure Advanced Capabilities in Location Designs
5. Configure Advanced Capabilities in Outdoor and High-Density Designs

Who Should Attend:

- Wireless Network Engineers

Provider: Cisco

Track: Wireless

Course Acronym: WISECURE

Course Title: Securing Cisco Wireless Enterprise Networks

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-375 WISECURE

Prerequisites: Valid Cisco CCNA Wireless or any Cisco CCIE certification

Course Overview:

In this course, you will learn how to secure Cisco wireless networks. The course provides guidelines for implementing Wi-Fi security architectures through proper configuration of Cisco wireless components, and also includes hands-on labs to reinforce concepts. You will learn about deploying Cisco AireOS 8.0, Cisco Prime Infrastructure Release 2.2, as well as Cisco Identity Services Engine Release 1.3 features. Cisco CCNP Wireless certification addresses the need for designing, implementing, and operating Cisco Wireless networks and mobility infrastructures.

Course Objectives:

- Security approaches in a Wi-Fi design
- Design and deploy end point and client security
- Design and deploy Cisco ISE in Wi-Fi network
- Secure the Wi-Fi infrastructure
- Design and deploy Wi-Fi access control
- Management and monitoring capabilities in the Wi-Fi environment

Course Outline:

1. Define Security Approaches in a Wi-Fi Design
2. Design and Deploy End Point and Client Security
3. Design and Deploy Cisco ISE and Management Platforms
4. Secure Wi-Fi Infrastructure
5. Design and Deploy Wi-Fi Access Control
6. Design and Deploy Monitoring Capabilities

Who Should Attend:

- Wireless Network Engineers

Provider: Cisco

Track: Wireless

Course Acronym: WITSHOOT

Course Title: Troubleshooting Cisco Wireless Enterprise Networks

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 300-370 WITSHOOT

Prerequisites: Valid Cisco CCNA Wireless or any Cisco CCIE certification

Course Overview:

In this course, you will learn how to troubleshoot Cisco wireless networks. In addition, you will learn about the guidelines for troubleshooting Wi-Fi architectures of Cisco wireless components. Hands-on labs are designed to reinforce concepts such as troubleshooting Cisco AireOS Release 8.0, Cisco Prime Infrastructure Release 2.2, and Cisco Identity Services Engine (Cisco ISE) Release 1.3 features. Cisco CCNP Wireless certification addresses the need for designing, implementing, and operating Cisco Wireless networks and mobility infrastructures.

Course Objectives:

- Methodology
- AP joining issues
- Client connectivity issues
- Identify and locate RF interferences
- Client performance issues
- Identify common wired infrastructure issues based on the output from common troubleshooting tools
- WLC and AP high-availability issues

Course Outline:

1. Identify Common Troubleshooting Approaches
2. Identify Wireless Infrastructure Issues
3. Identify Core Wireless Infrastructure Issues
4. Identify Wireless Security Issues

Who Should Attend:

- Wireless network engineers with at least 3 years of experience in the networking or security fields

Provider: NC-Expert, for Cisco exam
Track: Wireless
Course Acronym: CCIEWL1
Course Title: CCIE Wireless Expert Workshop 1
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 400-351 Written
Prerequisites: None

Course Overview:

This is an NC-Expert Exclusive Course

CCIEWL1 provides 5 days of expert level topics targeted at CCIE students in the early or middle stages of their studies. This workshop provides a solid foundation upon which the candidate can build. It then progresses to more advanced technologies, introducing candidates to the more complex concepts that need to be mastered for the CCIE. Finally, the workshop starts to prepare candidates for the high pressure, intense environment of the CCCIE wireless exam by giving them practice scenarios to work through.

The candidate will learn expert-level concepts for deploying a Cisco Wireless environment such as:

- Network Infrastructure
- QoS
- Unified Deployments
- Flex-Connect
- Autonomous Deployments
- Security
- IPv6
- Multicasting
- RRM and CleanAir

Who Should Attend:

- This program is suitable for anyone with 3-5 years of Cisco Wireless experience
- Preferably the candidate will already have current CCNP or would have completed training in the latest version of courses

Provider: NC-Expert, for Cisco exam
Track: Wireless
Course Acronym: CCIEWL2
Course Title: CCIE Wireless Expert Workshop 2
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 400-251 Lab
Prerequisites: None

Course Overview:

This is an NC-Expert Exclusive Course

CIEWL2 is an extensive hands-on lab practice targeted at students in the final stages of the CCIE preparation. The workshop teaches students how to apply various troubleshooting and problem-solving techniques, how to manage time allocation, and how to optimize resources during the lab. The workshop includes simulated exam tasks preparing the students for multiple exam tasks across the blueprint categories.

The student will learn expert-level concepts for deploying a Cisco Wireless environment such as:

- Time Management
- Exam Management
- Advanced Troubleshooting
- CMX and Locations
- Advanced ISE and Prime
- Advanced Security
- Media and Application Services
- Wireless and Spectrum Analysis

Who Should Attend:

- This program is suitable for anyone with 3-5 years of Cisco Wireless experience
- Preferably the candidate will already have current CCNP or would have completed training in the latest version of courses

CompTIA COURSES

Provider: CompTIA

Course Acronym: A+

Course Title: Administrator Plus

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: 220-902 and 220-901 A+

Prerequisites: 9 to 12 months hands-on experience in the lab or field

Course Overview:

You will gain necessary knowledge of basic computer hardware and operating systems. You will cover the essential principles of installing, building, upgrading, repairing, configuring, trouble-shooting, optimizing, and preventative maintenance on desktop and laptop computers. You will also learn elements of customer service and communication skills necessary to work with clients. Instructor-led practice exams and quizzes help reinforce course concepts and exam readiness.

Course Objectives:

- Prepare for the latest A+ certification exams (CompTIA A Plus Certification Prep)
- Fundamentals of computer technology
- Install and configure PC operating systems
- Configure common features for Android and Apple iOS mobile operating systems
- PC components
- Preventative maintenance
- Operating system technologies
- Communicate with customers in a professional manner
- Computer hardware and peripherals and Network connections
- Laptop and portable computing device components
- Support printers and scanners
- Secure PCs

Course Outline:

1. Troubleshooting
2. Motherboards
3. Computer Power Supplies and Memory
4. Network Basics and Computer Expansion
5. Physical Storage and Display Devices
6. Operating Systems and Windows Management
7. Network Cables, Connectors and Protocols
8. Wireless Networking, Windows Networking, Virtualization and Cloud Computing
9. Mobile Devices, Security Basics, SOHO Network Configuration
10. Printers and Multifunction Print Devices, Custom Computers and Operational Procedures

Who Should Attend:

- Individuals seeking CompTIA A+ certification

Provider: CompTIA

Course Acronym: N+

Course Title: Network Plus

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: N10-006 Network+

Prerequisites: CompTIA A+ Certification, 9 months of networking experience

Course Overview:

Earning CompTIA's Network+ certification increases your value in the marketplace by providing proof of your knowledge, skills, and ability to manage, maintain, troubleshoot, install, operate, and configure a basic network infrastructure. Our Network+ Prep Course allows you to demonstrate the concepts covered on the Network+ exam using a sophisticated remote lab environment. Work through several practice exams to reinforce your knowledge and gain essential networking skills in labs featuring networking devices such as routers, switches, access points, and others.

Course Objectives:

- Basic network theory concepts and Industry standard communications methods
- Network media and hardware components
- Components of a TCP/IP network implementation
- TCP/IP addressing and data delivery methods
- Crucial services employed in TCP/IP network environments
- Components of local area networks (LANs)
- Wide area network (WAN) concepts and associated technologies
- Components of remote network implementation
- Major issues and methods to secure systems on a network
- Major issues and technologies in network security
- Network security threats and attacks
- Tools, methods, and techniques used in managing a network
- Troubleshooting network issues

Course Outline:

1. Network Media and Devices
2. Addressing and Routing
3. Network Applications
4. Network Security
5. Management, Monitoring, Troubleshooting

Who Should Attend:

- Wireless network engineers with at least 3 years of experience in the networking field

Provider: CompTIA

Course Acronym: S+

Course Title: Security Plus

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: SY0-401 Security+

Prerequisites: CompTIA Network+ and two years of experience in IT administration with a security focus

Course Overview:

CompTIA's Security+ is the premier vendor-neutral security certification and demonstrates your knowledge of security concepts, tools, and procedures. It confirms your ability to react to security incidents, and it validates your skill in anticipating security risks and guarding against them. (CompTIA Security Plus) You will learn to proactively implement sound security protocols to mitigate security risks, quickly respond to security issues, retroactively identify where security breaches may have occurred, and design a network, on-site or in the cloud, with security in mind.

Course Objectives:

- Security threats and controls (CompTIA Security Plus)
- Cryptography and access control
- Network security
- Host, data, and appliance security
- Operational security

Course Outline:

1. Security Threats and Controls
2. Cryptography and Access Control
3. Network Security
4. Host, Data and Application Security
5. Operational Security

Who Should Attend:

- Anyone starting down the Security Career Path
- Candidates for the Security+ Certification

CWNP COURSES

Provider: CWNP

Course Acronym: CWTS

Course Title: Certified Wireless Technology Specialist

Course Length: 1 day / 8 hours

Approximate Class Time: Mon, 9:00am to 5:00pm

Tuition Fee: \$1,495

Exam: PW0-071

Prerequisites: None

Course Overview:

The training for this certification provides a solid foundation in Wireless Networking and gives a high-level overview of the field. The concepts which can be learned in this class will act as a firm foundation upon which to take the next CWNP training class(es). This class introduces topics such as basic RF theory in an easy-to-understand format, which will provide a solid foundation in Wireless Networking. The course offers training in basic RF theory, regulatory requirements, and explains the methodology for implementation of WLAN devices. This course focuses on introducing Wi-Fi sales and support professionals to the latest in 802.11 technologies. If the student is considering entering into, or advancing within, the wireless networking industry, this course will introduce the student to the basic, necessary understanding. This class is the first in the series of CWNP certification classes which can lead to the prestigious CWNE – Certified Wireless Networking Expert – designation!

Course Objectives:

- Understand basic RF theory
- Define applicable regulatory requirements
- Understand the methodology for implementation of WLAN devices
- Describe the latest 802.11 technologies

Course Outline:

1. Introduction to Networking
2. Introduction to WiFi
3. WiFi Infrastructure and Client Devices
4. WiFi Terminology and Operation
5. Radio Frequency Fundamentals
6. Antennas and Accessories
7. Under The Hood
8. RF Site Surveys
9. WiFi Security
10. WiFi Troubleshooting

Who Should Attend:

- Sales Managers

- Non-technical Engineering Team Managers
- Those beginning their careers in Wireless Networking

Provider: CWNP
Course Acronym: CWNA
Course Title: Certified Wireless Network Administrator
Course Length: 3-4 days / 24-32 hours
Approximate Class Time: TBA, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: CWNA-107
Prerequisites: None

Course Overview:

This 3 or 4 day course (depending on format) covers a multitude of topics ranging from RF frequencies, Wireless Lan Analysis and RF Math, to Site Surveying and Antennas. From basic RF theory to 802.11 Frame Exchange Processes, this course delivers hands-on training tht will benefit the novice as well as the experienced network professional. Ideal for Engineers who have at least 1 year of experience in the field and acts as a gateway (prerequisite) to the Professional suite of wireless certifications. The CWNA is a foundational level wireless LAN certification for the CWNP Program.

Course Objectives:

- 2.4 GHz vs 5 GHz Throughput Testing
- Viewing RSSI
- 2.4 GHz Amplified
- Configuring an AP and a Client
- Protocol Analysis
- 802.11n Impact
- Site Survey Tools
- Configuring Basic Security

Course Outline:

1. Radio Frequency (RF) Technologies and Antenna Concepts
2. Wireless LAN Hardware and Software
3. Network Design, Installation, and Management
4. Wireless Standards and Organizations
5. 802.11 Network Architecture
6. Wireless LAN Security
7. Troubleshooting
8. How to Perform Site Surveys
9. Power over Ethernet
10. Basic WLAN Analysis
11. HT PHY-In-Depth
12. Site Surveying

Who Should Attend:

- Wireless Network Engineers

Provider: CWNP
Course Acronym: CWSP
Course Title: Certified Wireless Security Professional
Course Length: 3 days / 24 hours
Approximate Class Time: TBA, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: CWSP
Prerequisites: CWNA

Course Overview:

In this 3 day course, students are taught about various forms of Security Technologies, Management and Monitoring. Using the latest enterprise wireless LAN security and auditing equipment in this hands-on course, learn, in detail, the most up-to-date WLAN intrusion and DoS tools and techniques. You will learn about functionality of the 802.11i amendment to the 802.11 standard, the inner-workings of each EAP type used with wireless LANs today, and every class and type of WLAN security solution available on the market from wireless intrusion prevention systems to wireless network management systems. Upon completion of this course, students will have been exposed to the necessary skills for implementing and managing wireless security in an enterprise environment by creating layer 2 and layer 3 hardware and software solutions utilizing industry leading manufacturers' equipment.

Course Objectives:

- WLAN Controller Security
- Using Laptop Analyzers
- Fast Secure Roaming
- Wireless Intrusion Prevention Systems (WIPS)

Course Outline:

1. Security Fundamentals
2. Wireless Security Challenges
3. WLAN Mobile Endpoint Security Solutions
4. Small/Branch/Remote Office WLAN Security Technology & Solutions
5. Security Policy
6. Understanding Authentication
7. RSN Authentication & Key Management (AKM)
8. Encryption
9. Security Design Scenarios
10. Secure Roaming
11. Network Monitoring
12. Enterprise WLAN Security Technology, Management and Monitoring Solutions

Who Should Attend:

- Wireless Network Engineers

Provider: CWNP
Course Acronym: CWDP
Course Title: Certified Wireless Design Professional
Course Length: 3 days / 24 hours
Approximate Class Time: TBA, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: CWDP
Prerequisites: CWNA

Course Overview:

This 3-day course supports CWDP certification which is a professional level wireless LAN certification for the CWNP Program. The class will provide students with the skills to design enterprise WiFi networks across multiple deployments, environments, and/or applications on multiple brands of equipment. Students will learn how to plan and design 802.11 networks regardless of the infrastructure of the deployment environment. The course consists of instructor-lead training applicable to the design of wireless LANS using the latest technologies including 802.11n and 802.11ac and goes in-depth to the design process and provides students with the knowledge needed to plan, deploy and test modern 802.11 based networks. The CWDP certification will advance your career by ensuring you have the skills to successfully design enterprise Wi-Fi networks for a variety of different applications, deployments, and environments, no matter which brand of Wi-Fi gear your organization deploys.

Course Objectives:

- WLAN Design
- Wi-Fi Networks
- Plan and Design Enterprise Wi-Fi Networks

Course Outline:

1. WLAN Design Overview
2. Requirements Analysis
3. Designing for Clients and Applications
4. Designing for Industry
5. Vendor Selection Processes
6. Radio Frequency Planning
7. WLAN Hardware Selection
8. Site Surveys
9. Designing for Quality of Service
10. Designing for Security
11. Install, Testing, Validation & Troubleshooting

Who Should Attend:

- Wireless network engineers with at least 3 years of experience in the networking field

Provider: CWNP
Course Acronym: CWAP
Course Title: Certified Wireless Analyst Professional
Course Length: 4 days / 32 hours
Approximate Class Time: Tues-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: CWAP
Prerequisites: CWNA

Course Overview:

This 4 day course is designed to provide students with Wireless LAN analysis and troubleshooting tools. It introduces the Physical and MAC Layer Formats and Technologies, Protocol Operation and Analysis Tools and their Methodologies. With up-to-date enterprise wireless LAN analysis and troubleshooting concepts, this course delves deeply into the functionality of WLANs, intended operation of the 802.11 protocol and Wi-Fi Alliance specifications, WLAN frame formatting and structure, troubleshooting methodology, and protocol analysis. This is in-depth training in modern spectrum analysis with a focus on advanced RF behavior analysis, data collection methods, interpreting spectrum plots and charts, and understanding advanced features of WLAN spectrum analyzers.

Course Objectives:

- 802.11 Physical (PHY) Layer Frame Formats and Technologies
- 802.11 MAC Layer Frame Formats and Technologies
- 802.11 Operation and Frame Exchanges
- Spectrum Analysis and Troubleshooting
- Protocol Analysis and Troubleshooting

Course Outline:

1. Principles of Wireless Communications
2. 802.11 PHY: Structure & Formats
3. The 802.11 MAC
4. Protocol Operation
5. 802.11n
6. Spectrum Analysis
7. Protocol Analysis: Practical Use

Who Should Attend:

- Wireless network engineers with at least 3 years of experience in the networking field.

EC-COUNCIL COURSES

Provider: EC-Council
Course Acronym: CND
Course Title: Certified Network Defender
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 312-38 CND
Prerequisites: None

Course Overview:

This class is a professional level introduction to the cyber defense strategies needed in today's critical infrastructure. EC-Council has reviewed the entire CND space as designated by the Department of Defense as IAT I, II, III and IAM I, II, III as well as the NICE Framework KSA's as they relate to cyber defense and day-to-day cyber operations. With each of these considered, they built their exam blueprint, overall training scope, and got to work building the next certification we believe will be a game changer for cyber security professionals – Certified Network Defender.

Course Objectives:

- Cyber Defense Strategies
- Day-to-day Operations

Course Outline:

1. Computer Network Defense Fundamentals
2. Network Security Threats, Vulnerabilities, and Attacks
3. Network Security Controls, Protocols, and Perimeter Appliances
4. Secure Firewall Configuration, Deployment and Management
5. Secure IDS and VPN Configuration and Management
6. Designing a Secure Network
7. Network Traffic Signatures and Analysis
8. Monitoring and Securing Network Traffic
9. Network Vulnerability Scanning
10. Host/System and Physical Security
11. Designing and Implementation of Network Security Policies
12. Network Incident Response and Management
13. Network Backup and Disaster Recovery
14. Wireless Network Defense

Who Should Attend:

- System administrators, engineers and Firewall administrators
- Network managers, IT managers, IT professionals

- Operations personnel, who although do not have security as their primary job function, will need an understanding of cyber security core principles and practices

Provider: EC-Council
Track: Security
Course Acronym: CEH
Course Title: Certified Ethical Hacker v9
Course Length: 5 days / 40 hours
Approximate Class Time: Mon-Fri, 9:00am to 5:00pm
Tuition Fee: \$2,495
Exam: 312-50 CEH
Prerequisites: None (Advisory: CND)

Course Overview:

If you're concerned about the integrity of your network's infrastructure, this course will teach you the ethical hacking tools and techniques needed to enhance your network's defenses. You'll begin by learning how perimeter defenses work. By scanning and attacking your own network (no real networks will be harmed), you'll also learn how intruders operate and the steps to secure a system. In the interactive, lab-filled environment of this ethical hacking course, you will gain in-depth knowledge and practical experience with current, essential security systems. You will explore common ethical hacking topics, such as intrusion detection, policy creation, social engineering, DDoS attacks, buffer overflows, and virus creation.

Course Objectives:

- Foot-printing, Network scanning, Enumeration, Packet sniffing, Social Engineering
- DoS/DDoS, Session hijacking, Penetration testing, Cryptography ciphers
- Webserver and web application attacks and countermeasures
- SQL injection attacks, Wireless encryption, Cloud computing threats

Course Outline:

1. Introduction to Ethical Hacking
2. Foot-printing and Reconnaissance
3. Scanning Networks, Enumeration and SQL Injection
4. System Hacking and Malware Threats
5. Sniffing, Social Engineering and Denial of Service
6. Session Hijacking, Hacking Webservers and Hacking Web Applications
7. Hacking Wireless Networks and Mobile Platforms
8. Evading IDS, Firewalls, and Honeypots
9. Cloud Computing and Cryptography

Who Should Attend:

- Security officers
- Auditors
- Security professionals
- Site administrators
- Individuals concerned about the integrity of the network infrastructure

(ISC)² COURSES

Provider: (ISC)²

Track: Security

Course Acronym: CISSP

Course Title: Certified Information Systems Security Professional

Course Length: 5 days / 40 hours

Approximate Class Time: Mon-Fri, 9:00am to 5:00pm

Tuition Fee: \$2,495

Exam: CISSP

Prerequisites: At least five years of cumulative, paid, full-time work experience in two or more of the eight domains of the (ISC)² CISSP Common Body of Knowledge (CBK)

Course Overview:

Gain core knowledge and experience to successfully implement and manage security programs. This course is the most comprehensive review of information security concepts and industry best practices and covers the eight domains of the official CISSP CBK (Common Body of Knowledge). You will gain knowledge in information security that will increase your ability to successfully implement and manage security programs in any organization or government entity. This five-day program is comprised of a total of eight domains.

Course Objectives:

- Security and Risk Management
- Asset Security
- Security Engineering
- Communications and Network Security
- Identity and Access Management
- Security Assessment and Testing
- Security Operations
- Software Development Security

Course Outline:

1. Security and Risk Management
2. Asset Security (Protecting Security of Assets)
3. Security Engineering (Engineering and Management of Security)
4. Communications and Network Security (Designing and Protecting Network Security)
5. Identity and Access Management (Controlling Access and Managing Identity)
6. Security Assessment and Testing (Designing, Performing & Analyzing Security Testing)
7. Security Operations (Foundational Concepts, Investigations, Incident, Mngt. Disaster Recovery)
8. Software Development Security (Understanding, Applying & Enforcing Software Security)

Who Should Attend:

- Individual whose position requires CISSP certification

- Individuals who want to advance within their current computer security careers or migrate to a related career

COURSE DATES

Course dates can be found on our website at **<https://nc-expert.com/course-calendar>**

or by calling us at 1(855) 941-2121

Due to the dynamic nature of our course date requirements, we are unable to include specific course dates in this document.

Please note that the maximum length of any one of our classes is 5 days.

TERMS AND CONDITIONS

ENROLLMENT

Prospective students are encouraged to review this Catalog prior to signing an enrollment agreement.

Enrollment in any course can be achieved by any of the following options:

[1] Phone. Call our Sales team at 1(855) 941-2121 Monday to Friday, 8:00am-6:00pm (Eastern)

[2] Email. Contact us at sales@nc-expert.com or use the “Contact Us” form on our website. One of our Customer Service team will respond to answer any questions and confirm the course, dates, price, etc.

[3] Website. Visit our website at www.nc-expert.com Determine which course you wish to attend, select an available date, and follow on-screen prompts to initiate online enrollment.

Please note: multiple training classes may be needed for success in some certifications. Please ask us for details.

Prospective students are also encouraged to review the School Performance Fact Sheet, which will be made available during the enrollment process.

EDUCATIONAL CREDITS AND ADMISSION POLICIES

NC-Expert does not give any credit hours for attending training classes, nor is there a grade point average (GPA) to be maintained.

Most of the training classes offered, are in anticipation of the student undertaking industry-standard certification exam(s) after attending class. In order to pass an exam, if a student chooses to take it, vendor/industry standards must be attained through attendance in class and additional personal study.

NC-Expert does not grant credit for "prior experiential learning" although this will be taken into consideration if NC-Expert is asked to recommend a course of study. NC-Expert may suggest a "fast-track" approach, in order to preserve a prospective student's time and money to the greatest extent possible.

At time of printing, this institution has not yet entered into any articulation agreements with any colleges or universities. However, it is to be noted that a number of California colleges, local to our head office, have begun to offer semester-length training classes in Cisco ICND1, Cisco ICND2, CWNP's CWNA, and CompTIA's A+, among others. In our estimation, a successful exam result should provide the candidate with credit hours however, it is the student's responsibility to check with their preferred college and ascertain whether the certification gained will be approved for credit hours.

NOTICE CONCERNING THE TRANSFERABILITY OF CREDITS AND CREDENTIALS EARNED AT OUR INSTITUTION:

The transferability of any credits you may earn at NC-Expert is at the complete discretion of the institution to which you may seek to transfer. Acceptance of the certificate you earn from successful examination resulting from your training course is also at the complete discretion of the institution to which you may seek to transfer. If the certificate(s) that you earn from successful examination through training at this institution are not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason, you should make certain that your attendance at this institution will meet your educational goals. This may include contacting the institution to which you may seek to transfer after attending NC-Expert to determine if your certificate will transfer.

CERTIFICATIONS

Certifications are obtainable, after attending NC-Expert training classes, and will result only from associated examination success.

Due to the nature of the training, no certifications will be earned through attendance at class, alone. Students are expected to sit the associated industry standard exams, in a proctored environment. Only success in examination will provide the student with the associated industry certification.

There are no specific standards for student achievement, other than success in optional industry certification exams which, in turn, provide the student with formal certifications – proof of competence in applying related technology.

Students are responsible for studying for, and independently scheduling, their certification exams.

Industry professional certification exams are generally taken after completion of a training course, at an authorized PearsonVUE Testing Center, or equivalent, unless otherwise noted.

See page 6 of this Catalog, for the Department of Labor's Standard Occupational Classification (SOC) job codes which may be applicable to certifications earned.

PAYMENT AND FINANCIAL INFORMATION

Payment can be provided by Credit Card, Corporate Check, Bank Wire, and Cisco Learning Credits. We also accept company Purchase Orders.

Payment is due before the course starts.

NC-Expert does not provide financial aid to students however, we can work with individuals to create a no-interest payment plan that works with an individual's budget. NC-Expert does not currently participate in Federal and State student financial aid programs.

If a student independently obtains a loan to pay for an educational program, the student is responsible to pay the full amount of the loan, plus any agreed interest, less the amount of any refund (if student cancels attendance) and, if the student receives Federal student financial aid funds, the student would be entitled to a refund of the monies not paid from Federal financial aid funds.

Notification: NC-Expert does not have a pending petition in bankruptcy, is not operating as a debtor in possession, has not filed a petition within the preceding five years, nor has it had a petition in bankruptcy filed against it within the preceding five years that resulted in reorganization under Chapter 11 of the United States Bankruptcy Code.

INSTITUTION LOCATION AND FACILITIES

Location and Facilities

NC-Expert's head office is located in Pleasanton, California, USA. Pleasanton is to be found approximately 30 miles east of San Francisco, in northern California.

Unless otherwise stated, all in-person class sessions will be hosted at our training center, located at:

5113 Johnson Drive
Pleasanton, CA 94588 USA
Phone: 1(855) 941-2121
Fax: 1(408) 689-9692

NC-Expert's training facility is located close to Oakland, San Jose, and San Francisco airports and is close to multiple hotel chains which are within easy walking distance of San Francisco Bay Area's light rail system "BART". This institution is also served by local bus routes.

The facility is on the ground floor of a 1-storey building and affords easy access for less able-bodied students. The building hosts a kitchen, which contains a fridge and microwave, and restroom facilities.

NC-Expert provides complementary drinks and snacks for in-person attendees; however, no meals will be provided during training. Students are invited to either bring their own food with them (which can be placed in the fridge and/or heated in the microwave, if desired), or visit one of the fast food or sit-down restaurants which are conveniently located within easy walking distance of our training facility.

NC-Expert does not have a dormitory facility under its control. Availability of accommodation located near the institution's facilities, or an estimation of the approximate cost of lodging during any live session, may be obtained via a generic Internet search. A listing of some of the local hotels can be found on NC-Expert's website (under "In-Person Attendance"). NC-Expert neither assumes nor accepts any responsibility for finding or assisting a student in making travel arrangements or in ascertaining housing/lodging.

Class Materials and Equipment

During class sessions, student materials may be provided either by hardcopy or electronic means. The course vendor generally determines the available method of materials delivery. The materials provided, as part of the class, will be sufficient for attendance in the class. No additional materials need be obtained prior to attendance.

Students are generally expected to bring their own laptop computers for use in class, although NC-Expert computing devices are available and can be issued, upon request, for in-classroom use. No special software will be required prior to start of class. Students will need administrative authority

over their computing device because free software downloads may be required to be installed during class.

Instructor presentations may be displayed electronically or through the use of physical or electronic whiteboard platforms.

NC-Expert does not have an onsite library/learning resource center for the general student body, as this is not required for any of the provided classes. All relevant class materials are provided as part of the courses. NC-Expert does not offer correspondence instruction before, or after, its 2-to-5-day course(s).

The closest public library is located at 200 Civic Plaza, Dublin, CA 94568 and it is recommended that interested students visit the location's website and submit a membership application in order to join and be permitted to check out books. Please visit www.aclibrary.org/dublin for more information.

Virtual Attendance

Virtual Sessions are hosted via Citrix GoToTraining and/or Cisco WebEx platforms. Virtual sessions will run in Pacific time (9:00am-5:00pm), unless otherwise stated.

Due to the nature of virtual/remote attendance and type of training provided by this institution, no response to student classwork submissions or projects will be necessary.

Virtual-attendance students will need the use of an Internet-compatible laptop or iPad-type device and will need to have Internet connectivity for the duration of class.

No special software will be required prior to start of class. Students will need administrative authority over their computing device because free software downloads may be required to be installed during class.

ATTENDANCE POLICY, RESITS, STUDENT SERVICES, AND RECORDS

Students must attend at least 80% of their class in order to receive a “course completion” certificate. Each of our classes is usually only up to a maximum of 5 days (40 hours) in length, so this level of commitment is not deemed to be excessive. For the benefit of the student, we recommend uninterrupted attendance at all class sessions.

Due to the nature of the training, no certifications will be earned through attendance at class, alone. Students are expected to sit industry standard exams, in a proctored environment. Only success in examination will provide the student with the associated industry certification.

Re-sits: NC-Expert allows students to re-sit the same course they have previously attended, provided there are spaces available in the selected class. Re-sits are offered on a virtual-attendance-only basis. Students will be required to reuse their original course materials, as this institution is unable to provide replacement materials. Students may not “re-sit” in a new/updated version of the class. Re-sits of the same version of the previously-attended class are provided free of charge to the student. *(Please see our website for full re-sit policy.)*

NC-Expert offers the following additional services at no cost to its students:

1. A free CWNP exam voucher is included with each CWNP class purchased. No other courses include free exam vouchers, unless otherwise stated.
2. Access to related webinars that run at various times throughout the year. Inclusion in this service is provided on a student-request basis.

NC-Expert does not provide travel assistance services. NC-Expert admits students from other countries to its classes, but a visa is not necessarily required since classes found in this course catalog can be attended remotely (*i.e.*, attended on an online live/virtual basis), meaning that there is no specific need or requirement to travel to the USA to attend class.

All NC-Expert classes/courses are taught in English and the student must have the ability to read and write English at the level of a graduate of an American high school as demonstrated by the possession of a high school diploma, GED, or passage of an authorized High School proficiency exam. NC-Expert does not provide translation services, nor does it provide ESL classes.

NC-Expert does not offer internship placement services for general population students. Although we can provide a prospective employer with a report of a student’s progress during class (upon student request), we do not actively place students with employers.

NC-Expert will keep student records for 5 years or as required by law.

RESCHEDULING AND CANCELATION

Rescheduling

We understand that, sometimes, life is unpredictable. For this reason, we permit students to reschedule their class attendance date.

To request a reschedule date, the student must contact the NC-Expert Customer Service team at **sales@nc-expert.com** in advance of their original class start date.

Cancellation

Students can cancel their enrollment agreement up to the end of day 1 of their enrolled class.

To issue a formal cancellation, the student must contact the NC-Expert Customer Service team. A refund request must also be submitted at time of cancellation.

To cancel attendance and request a refund, please email the NC-Expert Customer Service team at **sales@nc-expert.com** Include your full name, course name or number, and class start date.

Refunds

Any applicable refund will be issued to the original payor, through the original payment method, 45 days from cancellation date.

If electronic course or lab materials are accessed, this will render that portion of the tuition fee non-refundable. NC-Expert will charge, against any refund due, the value of the accessed materials/labs.

If hardcopy books have been sent to the student, they must be returned at the student's expense, unopened, to NC-Expert, or the cost of the books shall be deducted from any potential refunds due.

Leave of Absence

If you do not attend the class and do not let NC-Expert know you are unable to attend, we will hold your enrollment in "Leave of Absence" status for up to six (6) months from the start date of your original enrolled class.

After six (6) months, if we have not heard from you, we will deem your enrollment tuition fee payment to be forfeit.

LIST OF FACULTY AND QUALIFICATIONS

Rie Vainstein is the company's CEO. With over 25 years of business leadership experience Rie is focused on ensuring that our customer satisfaction, profitability, and operations are streamlined to support the expected growth in the coming years. She has enjoyed a long and varied career in multiple industries including: law enforcement, retail, healthcare, design, wholesale, financial services, property management, biotechnology, and venture capital, and successfully worked on several entrepreneurial ventures before launching NetCertExpert, Inc. in 2011. In the years since the company's founding, Rie has continued to build a strong, top-quality business which has enjoyed sustained growth. She graduated Summa Cum Laude from San Jose State University (California, USA) in Business Administration/Management, with special focus in High Tech, and is a member of American Mensa.

The company's CTO and Instructor Team Lead is Phil Morgan. With over 30 years of Engineering experience Phil is focused on ensuring the company is focused around the engineering and technologies that our customers and partners need today. He began his career by graduating from the University of South Wales with a degree in Computer Studies. He went on to successfully achieve his CCIE in 2001 with his first CCIE in Routing & Switching as number 5224. He later completed his second CCIE in Voice/Collaboration. Phil is a master instructor and engineer splitting his time between the classroom and customer sites, making technologies work in live environments as well as bringing them "to life" for his students. He has taught thousands of students in his 20+ year instructing career through training companies such as Global Knowledge, FastLane, and several other top names, prior to joining NetCertExpert. He has been the technical mind behind NetCertExpert since its inception and has built a very respected and trusted reputation with students and industry clients alike. Phil continues to ensure our classes are always current and constantly deliver the high standard of expertise we so strongly stand behind. In addition, he is part of Cisco's Certified Systems Instructor (CCSI) Advisory Board and can regularly be found speaking at major industry events. Phil is also a member of American Mensa.

The company's VP of Business Development is Diane Hicks. Diane is truly passionate about enabling customers and partners to achieve their IT training goals. She is an expert in utilizing NC-Expert's award-winning education solutions to help our customers and partners achieve their objectives. Over her 22+ years' experience within the IT training industry, Diane has helped tens of thousands of students and partners achieve success. During her career, Diane has directed and managed multiple sales teams with great success. She has a wealth of sales and management experience and understands the tenet of "delighting the customer". Diane has also enabled numerous business partners to be extremely successful in reselling training courses by providing them with the highest quality mentoring and support. Diane was raised in rural Kenya where family, friends, and associates were the most important aspects of life and nothing was taken for granted. She learned, at a very early age, the importance of treating people fairly and with respect. Diane has carried this view of the world into her adult working life and those who have met and interacted with Diane have always felt valued and enriched. Diane is a graduate of the University of Nairobi.

Tor Olsen is NC-Expert's Director of Instructor Operations for the EMEA area. Throughout the past 34 years Tor has distinguished himself as an expert level instructor and engineer. He founded 2RNet APS, a Copenhagen Denmark-based company that specializes in Cisco wireless and security consulting. Prior to this, Tor was a decorated Warrant Officer in the Royal Danish Air Force – a career which spanned over 17 years. During his technical training career Tor has led 1,000s of engineers through extremely difficult topics and helped many achieve the highest possible levels of expertise. His love of technology keeps him teaching on a daily basis, in addition to his role on NC-Expert's leadership team.

Robert Wilson is NC-Expert's Apprenticeship Advisor/Consultant and is the President and founder of Military Network, a group that provides information and advisory services for 15,000+ US Military Veterans. Robert joined us as a key partner in our IT Apprenticeship Program team bringing with him more than 15 years' experience working with DOL Apprenticeship and NITAS based programs. Robert was an original NITAS Consultant and has been involved with the program since its inception in 2004. In addition to consulting on various IT training programs, Robert has helped thousands of Veterans transition into the IT field, and his in-depth knowledge of the process has helped to launch various NC-Expert programs. Robert is a US Army Veteran.

NC-Expert's additional instructors are contractual, and their adherence to strict rules of eligibility to teach classes is maintained by NC-Expert, at the highest standard.

ACCREDITATION AND APPROVALS

NC-Expert and its IT industry certification training are not accredited by an academic accrediting agency recognized by the United States Department of Education.

Although endorsed by individual vendors, to provide training on their behalf, NC-Expert remains a private, for-profit, institution.

NC-Expert is an authorized partner of the following certification vendors:

Cisco
CWNP
EC-Council
Mile2

Through strategic partnerships, NC-Expert also provides authorized training for:

CompTIA
ISC2

QUESTION, COMPLAINT, GRIEVANCE, AND DISCIPLINE PROCESS

At the end of each class/course the students will be provided with an evaluation form which will allow them to express their thoughts regarding the standard of training they received. These evaluations will be individually reviewed by the CEO and appropriate action taken if deemed necessary.

A student may contact our Customer Service department at (855) 941-2121 or email **sales@nc-expert.com** with an explanation of the problem.

Alternately, if preferred, a student can email the company CEO directly at rievainstein@nc-expert.com or contact her by calling our Head Office main line number at (925) 350-6000. She would be pleased to help resolve any issues.

NC-Expert is an A+ rated member of the Better Business Bureau. The Better Business Bureau can also assist in resolving any disputes, of which, at time of going this publication to press, there have been none in the entire history of the company.

NC-Expert has no student probation or discipline procedures however if, during class, a student behaves in a disruptive, anti-social, or aggressive manner, they will be asked to leave the class for the safety and well-being of the other students. If the anti-social or aggressive behavior persists, the police may be called upon to assist or intervene.

DISCLAIMER

While every effort has been made to produce an accurate Course Catalog, which was deemed correct at time of original publication, it is the responsibility of the reader to check the course vendor's website to ascertain current class content information.

No reliance should be placed on the information contained herein, which is published for guidance purposes only. NC-Expert will not be held liable for any errors.

It is advised that the reader double-check with the vendor's website to confirm accuracy of course content prior to enrolling in any classes.