SCTE 2021 COURSE CATALOG

Accelerate the Deployment of Technology to Drive Business Results.

© Society of Cable Telecommunications Engineers, Inc. a subsidiary of Cablelabs 2021.
“SCTE offers courses that cover a wide range of cable-specific knowledge that our company needs to keep its employees ahead of the latest technologies. SCTE’s renowned training and certification is a necessary foundation of our workforce development for our technicians, installers and engineers. I highly recommend them to any organization looking to grow their business, increase efficiencies and save money through world-class technical training.”

Andy Parrott,
EVP & COO, Vyve Broadband
EVERYTHING YOU NEED FOR YOUR CAREER. NOTHING LIKE YOU EXPECTED.

There Are so Many Ways to Get Ahead.

SCTE Membership
Becoming an SCTE member isn’t a one-time event. You work in an industry that is constantly evolving. It’s time to join the evolution.

SCTE Certification
SCTE certification is the cable industry’s premier endorsement for professionals. Prove your cable knowledge. Gain recognition for your skills. Promote your expertise. Advance your career. Get certified today.

Access Expo Expertise.
Every year, Cable-Tec Expo®—takes learning to the next level. As a member of SCTE, you’ll have access to more than 900 papers presented at Cable-Tec Expo workshops from as far back as 2000!

Further Your Career. Closer to Home.
Your local SCTE chapter provides training, professional development and SCTE certification testing opportunities to members in over 70 locations across the globe.

MicroLessons are short, focused learning segments on topics that are a complimentary part of your SCTE membership!

There’s a Webinar for Almost Everything.
As a member, you’ll have access to live and recorded webinars on the latest technologies. In addition to our monthly LiveLearning Webinars™ we also offer our Technology Series on hot industry topics and exclusive leadership webinars for our Executive members.

Answering the Question “What is...?”
The SCTE Primer series are short multimedia webinars designed to help you learn new technologies, prepare for certification exams or just get a technical refresher.

Learn at Lightning Speed.
Our LightningMods™ allow you to get a clear and concise overview of course content and prepare your mind for training in as little as 10 minutes!

Save the Date for Training.
With thousands of hours of onsite training per year, we make it easy for you to expand your skills and learn the latest technologies. Check out the Technical Training Calendar to see what’s happening with our local chapters!

Chapter Technical Training.
Local seminar/webinar, vendor day networking, and thought-leadership opportunities in our close to 70 chapters.

All SCTE Online Courses Are Also Available for an Instructor-led Onsite Boot Camp.
Bring any course to your location for a 2-day session.

Tap Into Cable Knowledge and Information.
Our Cable Glossary and Search Engine are easy ways for members to access definitions, specifications and information on all cable topics—from general principles to the most advanced new technology. Just another way our members can boost their knowledge.

Stay Connected!
SCTE List is now MemberConnect! Share ideas and suggestions to the SCTE community via this new interactive platform that now allows you to upload documents, color graphics, create your own communities, forums and make announcements.

Learn From Technology Experts.
Read SCTE Technical Journals focusing on Network Operations, Energy Management, and Digital Video developed from key topics covered by the SCTE Standards Program.

Check Out the Broadband Library.
In our Broadband Library, you’ll find insights you simply won’t find anywhere else. Distinguished business leaders, engineers, and SCTE representatives share their personal views on the current and future state of broadband and its technology—it’s can’t miss content!

White Papers Designed to Make You a Brighter Professional.
SCTE White Papers give you key insights into how new technologies and solutions are impacting the telecommunications industry. Recent topics include deployment outlook, network upgrades and training techniques.

Become a member today.
scte.org/membership
**SCTE TRAINING & CERTIFICATION**

*Advance Your Career Through SCTE Training & Professional Certifications*

Show Off Your Expertise
SCTE certification is the industry’s premier endorsement for technical professionals. SCTE certifies various levels of expertise and practical knowledge across the telecommunication network.

SCTE training helps you prepare for SCTE and related industry certifications. Learn more at scte.org/certification.

**SCTE CERTIFICATION PROGRESSION**

**RECOMMENDED LEARNING PATH**

**RELATED INDUSTRY CERTIFICATIONS**

“SCTE certifications helped to take my job and turn it into a career. Each certification built upon the last and created a platform that has helped me to become what I am today. It is truly a program that should be taken advantage of by any professional attempting to make a career in the Telecommunications field. Challenge yourself by learning through SCTE and see what you can become.”

Nick Williams, BPE, BDS, BTS, Headend Technician, Comcast Cable Communications

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CORTEX VirtuLearn is a revolutionary, interactive, multisensory training experience for today’s telecommunication technical workforce. SCTE is the first in the industry to offer this 3D interactive training! VirtuLearn enhances training efficiency and effectiveness in service installation, maintenance and troubleshooting for outside plant and at the headend, and more!

Turn your employees into experts—anytime, anywhere. See how CORTEX VirtuLearn from SCTE is an essential technical resource for skills training and on-the-job guidance.

In as little as 10 minutes, learners get a clear and concise understanding of engaging content to prepare their minds and explain why this training is important to the learner or training.

In-depth highly interactive content presented at a pace that suits tactile learners and provides them with the essential knowledge and the how and why behind telecommunication technologies.

Real-life experiences in 3D-simulated environment that bridges the gap between eBook knowledge and actual application protocol in the field.

Learners participate in a competitive series of fun mobile games that improve knowledge absorption and retention.

To learn more, visit scte.org/virtulearn or contact us at profdev@scte.org
DOCSIS Engineering Professional

The DOCSIS Engineering Professional (DEP) developed in partnership with CableLabs® course prepares broadband data engineers to better understand the elements and implementations of the Data Over Cable Service Interface Specification (DOCSIS) 1.0 through DOCSIS 3.1. This course educates how to quickly and easily build, deploy, manage, and troubleshoot versions of DOCSIS telecommunication networks. It also details: DOCSIS system design architecture, signals and protocol layering; operations; upstream-downstream corrective measures; cable modem configuration/cable modem termination systems. In addition, participants will discover important operating requirements, security parameters, DOCSIS Set-top Gateway (DSG) operation, operational support systems (OSS), IPv4/6, and troubleshooting tips for each version.

COURSE DELIVERY METHODS:
- **Groups & Technical Teams:**
  - Onsite & Virtual Classroom (5 days)
  - Boot Camp (4 days)
- **VirtuLearn:**
  - LightningMods, eBooks, NetworkSims & VirtuGame
- **Individual Professionals:**
  - Self-Paced Online

Additional Course Info:
- SCTE Recertification Units (4)

Recommended Prerequisites:
- SCTE Understanding Network Technology, SCTE Understanding DOCSIS Technology, SCTE Broadband TelecomCenter Specialist (BTCS) or equivalent

Value:
- Prep for SCTE Certification: DEP

Digital Video Engineering Professional

The Digital Video Engineering Professional (DVEP) course prepares broadband video engineers with the knowledge required in the engineering aspects of digital media (which includes video, audio, interactive services, and associated data) systems as deployed in the telecommunications industry. This course educates participants in the process used to quickly and easily design, analyze, test, integrate, deploy, and troubleshoot a variety of digital media systems from the headend to the customer premises. In addition, participants will discover the importance of the Moving Picture Experts Group (MPEG); testing, monitoring, and fault isolation; and the cause of a variety of different video artifacts.

COURSE DELIVERY METHODS:
- **Groups & Technical Teams:**
  - Onsite & Virtual Classroom (5 days)
  - Boot Camp (4 days)
- **VirtuLearn:**
  - LightningMods, eBooks, NetworkSims & VirtuGame
- **Individual Professionals:**
  - Self-Paced Online

Additional Course Info:
- SCTE Recertification Units (4)

Recommended Prerequisites:
- SCTE Digital Telecommunication Network Fundamentals, SCTE Broadband TelecomCenter Specialist (BTCS) or equivalent

Value:
- Prep for SCTE Certification: DVEP

NEWLY UPDATED Internet Protocol Engineering Professional

The Internet Protocol Engineering Professional (IPEP) certifies the knowledge in the engineering aspects of IP systems as deployed in the telecommunications industry. The scope of this course includes the design, analysis, testing, integration, deployment considerations, and troubleshooting of a variety of IP systems.

COURSE DELIVERY METHODS:
- **Groups & Technical Teams:**
  - Onsite ONLY
- **Individual Professionals:**
  - Onsite ONLY

Additional Course Info:
- SCTE Recertification Units (5)

Recommended Prerequisites:
- SCTE Network Specialist (CompTIA Network+), CCNA1v7 Introduction to Networks or equivalent

Value:
- Prep for SCTE Certification: IPEP
NEW Broadband Premises Installation and Service Learning Journey

The Broadband Premises Installation and Service interactive learning journey covers the knowledge required to install, maintain and troubleshoot triple-play services (video, voice, and data) for cable telecommunications customers. This interactive course includes delivering positive customer service, RF theory, troubleshooting, test equipment, common measurements, and service restoration related to industry-wide standards and practices. This learning journey also provides instruction in the latest technologies, such as Wi-Fi, home networking, passive optical networks, MoCA, and untethered devices. The learning journey is comprised of three courses: Broadband Premises Installation – Safety, Broadband Premises Installation – Customer Service, and Broadband Premises Installation – Fundamentals.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
- Onsite & Virtual Classroom (4 days)
- Boot Camp (3 days)

VirtuLearn:
- LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals:
- Self-Paced Online

Additional Course Info:
- SCTE Recertification Units (4)
- Recommended Prerequisites:
  - SCTE Understanding Cable Technology or equivalent
- Value:
  - Prep for SCTE Certification: BPI
  - Spanish (eBooks & VirtuGame)

Broadband Wireless Specialist

The Broadband Wireless Specialist (BWS) course is designed to provide a comprehensive understanding of wireless networks in homes and small businesses. Learners will gain an understanding of: wireless, Wi-Fi standards, Wi-Fi network devices, planning and implementation; security, RF basics, antenna theory, best practice installation, and Wi-Fi troubleshooting.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
- Onsite, Virtual Classroom & Boot Camp (2 days)

VirtuLearn:
- LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals:
- Self-Paced Online

Additional Course Info:
- SCTE Recertification Units (2)
- Recommended Prerequisites:
  - SCTE Broadband Premises Installation, Safety and Customer Service or equivalent
Business Class Services Specialist

The Business Class Services Specialist (BCSS) course provides an in-depth instruction into business class services fundamentals, including how to install and troubleshoot today’s telecommunication operator business services for small-to-medium businesses.

The successful candidate will have the business services knowledge that instills employer confidence, employee value, and favorably affects the metrics of the customer experience. The business services training will bridge knowledge gaps between the RF and IP services needed to support larger business networks.

PROFESSIONAL CERTIFICATION: SCTE BCSS

COURSE DELIVERY METHODS:

Groups & Technical Teams: Onsite & Virtual Classroom (4 days) Boot Camp (3 days)

VirtuLearn: LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals: Self-Paced Online

Additional Course Info: SCTE Recertification Units (6)

Recommended Prerequisites: SCTE Broadband Premises Technician or equivalent


Broadband Fiber Installation

This interactive course is designed to provide learners with the benefits of working with Fiber to the Premises (FTTP) networks to service telecommunication customers. Learners will be able describe the types of Passive Optical Networks (PON) used by telecommunication operators and differentiate these networks from an HFC and Fiber Deep access network. Learners will identify the installation equipment and Customer Premises Equipment (CPE) needed to support FTTP networks, along with preparing fiber, working with multiple wavelengths, contrasting optical measurements, and troubleshooting FTTP service issues.

COURSE DELIVERY METHODS:

Groups & Technical Teams: Onsite, Virtual Classroom & Boot Camp (5 days)

VirtuLearn: LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals: Self-Paced Online

Additional Course Info: SCTE Recertification Units (5)

Recommended Prerequisites: SCTE Broadband Premises Technician or equivalent

Value: Prep for SCTE Certification: BWS Spanish (eBooks & VirtuGame)

UPDATED Broadband Distribution Specialist (Maintenance Technician Coax)

The Broadband Distribution Specialist (BDS) course focuses on the RF distribution of signals in the access network. All aspects of the access network from the optical node to the distribution tap are included in this comprehensive training course. A learner will learn about different network architectures, including HFC and distributed access architectures (DAA). They will gain a deep understanding of the components of an access network such as power supplies, active and passive devices. Additionally, the course will explore how signals operate in the access network and use system design calculations to verify proper signaling. The course discusses proper maintenance, troubleshooting, and construction practices, along with explaining the safety concerns while operating in this type of environment.

COURSE DELIVERY METHODS:

Groups & Technical Teams: Onsite & Virtual Classroom (5 days) Boot Camp (4 days)

VirtuLearn: LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals: Self-Paced Online

Additional Course Info: SCTE Recertification Units (5)

Recommended Prerequisites: SCTE Broadband Distribution Specialist (BDS) or equivalent

Value: Prep for SCTE Certification: BTS Spanish (eBooks, VirtuGame & Professional Certification)

Broadband Transport Specialist (Maintenance Technician Fiber)

The Broadband Transport Specialist (BTS) course focuses on optical signal distribution in the access and transport network architectures, while continuing to reach closer to a fiber deep deployment strategy to meet the customer’s bandwidth demands.

A learner will have the knowledge of fiber optic light theory, optical network troubleshooting, fiber system preventive maintenance, construction, fiber optic components and equipment; and restoration in the access network.

The course will explore equipment diagnostic screens for a “real world” feel for the optical equipment that is used to splice, monitor, test and install fiber optic cable and equipment. In addition, the course explores the issues surrounding inside and outside plant safety.

COURSE DELIVERY METHODS:

Groups & Technical Teams: Onsite & Virtual Classroom (5 days) Boot Camp (4 days)

VirtuLearn: LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals: Self-Paced Online

Additional Course Info: SCTE Recertification Units (5)

Recommended Prerequisites: SCTE Broadband Distribution Specialist (BDS) or equivalent

Value: Prep for SCTE Certification: BWS Spanish (eBooks, VirtuGame & Professional Certification)
Broadband TelecomCenter Specialist

The Broadband TelecomCenter Specialist (BTCS) course provides knowledge in maintenance and troubleshooting of the inside plant facilities to ensure minimal system outages, maximum reliability, and standards compliance for optimal operations. This includes knowledge of Building Management Systems (BMS) control and monitoring, grounding practices, backup powering, advanced entertainment, data and voice networks within the headend.

COURSE DELIVERY METHODS:

**Groups & Technical Teams:**
- Onsite & Virtual Classroom (4 days)
- Boot Camp (3 days)

**VirtuLearn:**
- LightningMods, eBooks, NetworkSims
- & VirtuGame

**Individual Professionals:**
- Self-Paced Online

**Additional Course Info:**
- SCTE Recertification Units (4)

**Recommended Prerequisites:**
- SCTE Broadband Distribution Specialist (BDS)
- or SCTE Broadband Distribution Fundamentals;
- and SCTE Broadband Transport Specialist (BTS)
- or Broadband Fiber Installer (BFI)

**Value:**
- Prep for SCTE Certification: BTCS
- Spanish (eBooks & VirtuGame)
Cisco Certification Prep Courses

Only SCTE has telecommunication-specific Cisco training. Prepare for Cisco industry certifications.

Cisco Certification Prep Courses:

CCNA PREP COURSES:

These courses prepare students to take the Certified Cisco Network Associate exam (200-301) and the SCTE Internet Protocol Engineering Professional (IPEP) industry certification.

CCNA ROUTING & SWITCHING PREP COURSES:

NEW CCNA1v7 – Introduction to Networks

CCNA1v7: Introduction to Networks for telecommunication professionals is the first of three courses that are used to prepare for the Cisco Certified Network Associate (CCNA) exam. This course also prepares individuals for the SCTE Internet Protocol Engineering Professional (IPEP) Industry certification.

CCNA1v7 introduces SCTE learners to fundamental networking concepts and technologies using a hands-on approach. Programming, cabling and installing routers, L2/L3 switches, IP configuration and other network equipment, with an emphasis on telecommunication operations.

In addition, the course will assist learners in developing the necessary skills to plan and implement small networks across a range of applications. An advanced understanding of TCP/IP, architectures, topologies, OSI model layers and network designs will be explored throughout the course. SCTE courses emphasize critical thinking, problem solving, collaboration, and the practical application of skills.

By the end of this course, the learner will be able to build LANs, perform configurations for routers and switches, and implement IP addressing schemes in both IPv4 and IPv6.

NEW CCNA2v7 – Switching, Routing, and Wireless Essentials

CCNA2v7: Switching, Routing, and Wireless Essentials (SRWE) for telecommunication professionals is the second of three courses that are used to prepare for the Cisco Certified Network Associate (CCNA) exam. This course also prepares individuals for the SCTE Internet Protocol Engineering Professional (IPEP) Industry certification.

CCNA2v7 introduces SCTE learners to architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts using a hands-on approach, with an emphasis on telecommunication operations. In addition, the course will assist learners with configuring and troubleshooting routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks. SCTE courses emphasize critical thinking, problem solving, collaboration, and the practical application of skills.

By the end of this course, learners will be able to configure and troubleshoot VLANs and inter-VLAN routing on Layer 3 devices. In addition, configure spanning tree protocol, EtherChannel, dynamic
addressing, first-hop redundancy protocols, IPv4/IPv6 routing, wireless LANs, and implement security best practices.

**COURSE DELIVERY METHODS:**

Groups & Technical Teams:
Onsite & Virtual Classroom (5 days)
Boot Camp (4 days)

VirtuLearn:
SCTE’s Partner Academy

Individual Professionals:
Self-Paced Online with Cisco Certified Academy Instructor (CCAI)

Additional Course Info:
SCTE Recertification Units (5)

Recommended Prerequisites:
CCNAv7: Introduction to Networks

Value:
Prep for CompTIA Certification: CCNA 200-301, Hands-on equipment configuration, CCNA exam discount
Spanish (Yes)

**NEW CCNAv7 Boot Camp**

(Pre- and Post-Course Activities Required)

Based on official Cisco curriculum, this course provides foundational networking knowledge, practical experience, and soft-skill development for entry-level IT and telecommunication networking functions, and the CCNA exam preparation. This course covers CCNA1 to CCNA3 using an on-site blended learning approach and includes required pre-and post-course work, self-study, online course content, and onsite instructor.

**COURSE DELIVERY METHODS:**

Groups & Technical Teams:
Onsite & Virtual Classroom (5* days) with Cisco Certified Academy Instructor (CCAI)

Additional Course Info:
SCTE Recertification Units (9)

Recommended Prerequisites:
SCTE Understanding Network Technology or Network Specialist (CompTIA Network+ 007)

Value:
Prep for CompTIA Certification: CCNA 200-301, Hands-on equipment configuration, CCNA exam discount
Spanish (Yes)
Understanding Cloud Computing (CompTIA Cloud Essentials)

This course provides the knowledge and characteristics of Cloud services from business perspectives, technical perspectives, and Cloud types. In addition, steps to successful adoption of Cloud computing, along with the impact and changes of Cloud computing on IT service management. Finally, the risk and consequences of Cloud computing will be explored.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite, Virtual Classroom & Boot Camp (1 day)

VirtuLearn:
eBook

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)

Recommended Prerequisites:
None

Value:
Prep for CompTIA Certification: Cloud Essentials CLO-002

Networking Specialist (CompTIA Network+)

The Network Specialist (CompTIA Network+) online course builds on foundational user-level knowledge, along with providing success with implementation, understanding of the industry standards, modern security, and grasp of core technologies. The course brings value to the telecommunication operator by saving on training investments and providing a productive workforce to support the modern connected home and enterprise network. The course content also addresses emerging subject areas like wireless networks, wired networks, virtualization, cloud, and network resiliency.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (4 days)
Boot Camp (3 days)

VirtuLearn:
LightningMods, eBooks, NetworkSims & VirtuGame

SCTE–CompTIA Certification Prep Courses

Only SCTE has telecommunication-specific CompTIA training. Learn IT and network technology fundamentals while preparing for CompTIA certifications. Enhance your telecommunication career through these SCTE–CompTIA courses.

CompTIA CLOUD ESSENTIALS CERTIFIED COURSE:

This course preps for the CompTIA Cloud Essentials (CLO-002) certification exam.

CompTIA PROJECT+ CERTIFIED COURSE:

This course preps for the CompTIA Project+ (PK0-004) certification exam.

CompTIA NETWORK+ CERTIFIED COURSE:

This course preps for the CompTIA Network+ (N10-007) certification exam.

CompTIA A+ CERTIFIED COURSES:

This course preps for the CompTIA A+ Hardware (220-1001) and CompTIA A+ Operating Systems (220-1002) certification exams.

CompTIA LINUX+ CERTIFIED COURSES:

This course preps for the CompTIA LX0-104 certification exams. Learners whom earn their CompTIA Linux+ certification can receive the Linux Professional Institute Certification 1 (LPIC-1) Linux Administrator as well for free.

CompTIA CLOUD ESSENTIALS CERTIFIED COURSE:

This course preps for the CompTIA Cloud Essentials (CLO-002) certification exam.

CompTIA PROJECT+ CERTIFIED COURSE:

This course preps for the CompTIA Project+ (PK0-004) certification exam.

CompTIA NETWORK+ CERTIFIED COURSE:

This course preps for the CompTIA Network+ (N10-007) certification exam.

CompTIA A+ CERTIFIED COURSES:

This course preps for the CompTIA A+ Hardware (220-1001) and CompTIA A+ Operating Systems (220-1002) certification exams.

CompTIA LINUX+ CERTIFIED COURSES:

This course preps for the CompTIA LX0-104 certification exams. Learners whom earn their CompTIA Linux+ certification can receive the Linux Professional Institute Certification 1 (LPIC-1) Linux Administrator as well for free.
Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (4)

Recommended Prerequisites:
SCTE Understanding Network Technology or equivalent

Value:
Prep for CompTIA Certification: Network+ N10-007
Spanish (eBooks & VirtuGame)

IT Essentials: PC Hardware and Software (CompTIA A+)

The IT Essentials, CompTIA A+, course offers an in-depth understanding of computer hardware and operating systems with an emphasis on practical experience to help learners develop fundamental computer skills, along with essential career skills. Participants learn the functionality of hardware and software components as well as suggested best practices in maintenance, diagnosis, troubleshooting, and safety issues. Through hands-on activities and labs, learners assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking, mobile devices, virtualization, cloud and security are included. This e-course helps participants prepare to earn CompTIA’s A+ certification.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (4 days)
Boot Camp (3 days)

VirtuLearn:
SCTE’s Partner Academy

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (3)

Recommended Prerequisites:
SCTE Linux Essentials

Value:
Prep for CompTIA Certification: A+ 220-1001, 220-1002
Spanish (Yes), Portuguese (Yes)

Linux Administrator
(Linux Professional Institute/CompTIA Linux+)

The course provides detailed, fundamental information on the use and system administration of a Linux distribution. The seminar provides hands-on training to effectively use, customize, and to perform file and disk management using command-line utilities. It also covers installation, package and service management; user accounting, permissions, disk systems and troubleshooting.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (3 days)
Boot Camp (2 days)

Value:
Prep for CompTIA Certification: Linux+ XK0-004

Spanish (Yes)

Red Hat® System Administration I

Red Hat® System Administration I course is designed for telecommunications professionals who are continuing to learn Linux and require core Red Hat enterprise Linux skills. This course focuses on essential administration tasks that will be encountered in the workplace, including installing the operating system, establishing network connectivity, managing physical storage, and performing basic security administration.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (3 days)
Boot Camp (2 days)

Value:
Prep for RedHat Certification: RHCSA EX200 with the Linux operating system and build on their skills and knowledge as they progress through the course.

RELATED COURSES:
Linux Essentials
(Linux Professional Institute)

The course provides the fundamentals of the Linux operating system and the command line. It provides a “starting place” for learning the Linux operating system. Learners who complete this course will understand Linux as an operating system, basic open source concepts, how Linux is used and the basics of the Linux command line.

This course implements a “practice as you learn” approach to training. Each learner has hands-on access to a Linux virtual machine to practice throughout the course, exploring and trialing Linux command line concepts. The learner is also provided with prescriptive step-by-step practical labs. These labs provide an environment where learners interact...
SCTE–CWNP Certification Prep Courses

Only SCTE has telecommunication-specific Certified Wireless Network Professional (CWNP) training. Learn today’s wireless technology and prepare for CWNP certifications at the same time. Expand your wireless knowledge through these SCTE–CWNP prep courses.

**NEW Certified Wireless Specialist®/SCTE Broadband Wireless Specialist**

The Certified Wireless Specialist (CWS) course provides intermediate knowledge that builds on foundational premises broadband wireless knowledge and is designed for learners advancing with wireless in the telecommunication industry. From RF theory, security and regulatory requirements to implementation of Wireless Local Area Network (WLAN) devices, this course focuses on bringing Wi-Fi technical professionals up-to-speed on the latest in 802.11 technologies in a practical way, along with the related wireless activities in the telecommunication industry.

**COURSE DELIVERY METHODS:**

- Groups & Technical Teams:
  - Onsite & Virtual Classroom (2 days)
  - Boot Camp (1 day)
- VirtuLearn:
  - LightningMods, eBooks, NetworkSim & VirtuGame
- Individual Professionals:
  - Self-Paced Online (SCTE BWS)

**Additional Course Info:**

- SCTE Recertification Units (2)
- Recommended Prerequisites: None
- Value:
  - Prep for SCTE Certification: BWS
  - Prep for CWNP Certification: CWS-100 Spanish (eBooks, VirtuGame & Professional Certification)

**NEW Certified Technician Specialist/SCTE Broadband Wireless Specialist**

The Certified Technician Specialist (CWT) course allows learners to install wireless services based on design document, set WLAN configuration, enable security and provide connectivity. The learner can troubleshoot basic problems and assist users in-person or through remote communications in problem resolution.

**CWNP CWS CERTIFIED COURSE:**

This course preps for the Certified Wireless Specialist (CWS) certification, Exam CWS-100.

**CWNP CWT CERTIFIED COURSE:**

This course preps for the Certified Wireless Technician (CWT) certification, Exam CWT-100.

**CWNP CWISA CERTIFIED COURSE:**

This course preps for the Certified Wireless IoT Solutions Administrator (CWISA) certification, Exam CWISA-101.

**CWNP CWNA CERTIFIED COURSE:**

This course preps for the Certified Wireless Network Administrator (CWNA) certification, Exam CWNA-108.

**CWNP CWAP CERTIFIED COURSE:**

This course preps for the Certified Wireless Analysis Professional (CWAP) certification, Exam CWAP-403.

**CWNP CWDP CERTIFIED COURSE:**

This course preps for the Certified Wireless Design Professional (CWDP) certification, Exam CWDP-303.

**CWSP CERTIFIED COURSE:**

This course preps for the Certified Wireless Security Professional (CWSP) certification, Exam CWSP-206.

**CWNP CWISA CERTIFIED COURSE:**

This course preps for the Certified Wireless IoT Solutions Administrator (CWISA) certification, Exam CWISA-101.

**CWNP CWNA CERTIFIED COURSE:**

This course preps for the Certified Wireless Network Administrator (CWNA) certification, Exam CWNA-108.

**CWNP CWAP CERTIFIED COURSE:**

This course preps for the Certified Wireless Analysis Professional (CWAP) certification, Exam CWAP-403.

**CWNP CWDP CERTIFIED COURSE:**

This course preps for the Certified Wireless Design Professional (CWDP) certification, Exam CWDP-303.

**CWSP CERTIFIED COURSE:**

This course preps for the Certified Wireless Security Professional (CWSP) certification, Exam CWSP-206.
Area Network (WLAN) components. The course also explores the local, regional, and international standards for RF power regulations and the RF math required for calculating units of measure. Participants will gain the skills to successfully perform a validation survey, installation, and administration of enterprise Wi-Fi networks. The course will also focus on mastering the skills required to install, administer, configure and troubleshoot WLAN hardware peripherals and protocols. Finally, safety concerns will be addressed as well as antenna theory, cabling, and connectorization.

**NEW Certified Wireless IoT Solutions Administrator**

The Certified Wireless IoT Solutions Administrator (CWISA) course allows learners to grasp the most frequently used wireless solutions in organizations. The Internet of Things (IoT), Bluetooth Low Energy (BLE), Cellular Solutions (LTE, LTE-U, 5G, CBRS), Machine to Machine Communications (M2M), Zigbee, Location Services, and Wired-Side Supporting Technologies will be explored. In addition, a high-level awareness of APIs, automation/integration concepts and project management specific to wireless solutions.

**COURSE DELIVERY METHODS:**

- Groups & Technical Teams: Onsite & Virtual Classroom (4 days)
- Boot Camp (3 days)
- Individual Professionals: Onsite ONLY
- Additional Course Info: SCTE Recertification Units (4)
- Recommended Prerequisites: SCTE Broadband Wireless Specialist or equivalent
- Value: Prep for CWNP Certification: CWTA-101

**NEW Advanced Wireless - Certified Wireless Network Administrator (CWNA)**

The Advanced Wireless Certified Wireless Network Administrator (CWNA) course provides advanced knowledge of RF behavior, modulation, signal loss, and operating channels. It describes the features and functions of Wireless Local Area Network (WLAN) components. The course also explores the local, regional, and international standards for RF power regulations and the RF math required for calculating units of measure. Participants will gain the skills to successfully perform a validation survey, installation, and administration of enterprise Wi-Fi networks. The course will also focus on mastering the skills required to install, administer, configure and troubleshoot WLAN hardware peripherals and protocols. Finally, safety concerns will be addressed as well as antenna theory, cabling, and connectorization.

**COURSE DELIVERY METHODS:**

- Groups & Technical Teams: Onsite & Virtual Classroom (4 days)
- Boot Camp (3 days)
- Individual Professionals: Onsite ONLY
- Additional Course Info: SCTE Recertification Units (3)
- Recommended Prerequisites: SCTE Broadband Wireless Specialist (BWS) or equivalent
- Value: Prep for CWNP Certification: CWWN-108

**Certified Wireless Analysis Professional**

The Certified Wireless Analysis Professional (CWAP) course provides a deep understanding of the latest software, tools, trends and technologies available. Security professionals are often counted on to advise on security policies (i.e. password and acceptable use). Plus, these experts are responsible for configuring an entire network’s Security Design and Architecture. Learn discovery attack techniques, attack techniques, WIPS implementation, VPNs, 802.11 authentication, and security design models.

**COURSE DELIVERY METHODS:**

- Groups & Technical Teams: Onsite & Virtual Classroom (4 days)
- Boot Camp (3 days)
- Individual Professionals: Onsite ONLY
- Additional Course Info: SCTE Recertification Units (3)
- Recommended Prerequisites: SCTE Broadband Wireless Specialist (BWS) or equivalent
- Value: Prep for CWNP Certification: CWNA-108

**NEW Certified Wireless Design Professional**

The Certified Wireless Design Professional (CWDP) course provides the knowledge to design an enterprise network, architecture and implement protocols of WLAN. In addition, learners will conduct site surveys, design security, and validate a WLAN.

**COURSE DELIVERY METHODS:**

- Groups & Technical Teams: Onsite & Virtual Classroom (3 days)
- Boot Camp (2 days)
- Individual Professionals: Onsite ONLY
- Additional Course Info: SCTE Recertification Units (3)
- Recommended Prerequisites: SCTE Broadband Wireless Specialist, Advanced Wireless-Certified Wireless Network Administrator (CWNA) or equivalent
- Value: Prep for CWNP Certification: CWDP-303

**Certified Wireless Security Professional**

The Certified Wireless Security Professional (CWSP) course provides a deep understanding of the latest software, tools, trends and technologies available. Security professionals are often counted on to advise on security policies (i.e. password and acceptable use). Plus, these experts are responsible for configuring an entire network’s Security Design and Architecture. Learn discovery attack techniques, attack techniques, WIPS implementation, VPNs, 802.11 authentication, and security design models.

**COURSE DELIVERY METHODS:**

- Groups & Technical Teams: Onsite & Virtual Classroom (4 days)
- Boot Camp (3 days)
- Individual Professionals: Onsite ONLY
- Additional Course Info: SCTE Recertification Units (4)
- Recommended Prerequisites: SCTE Advanced Wireless - Certified Wireless Network Administrator (CWNA)
- Value: Prep for CWNP Certification: CWSP-206
MEF–CECP with Tech 2000

SCTE is offering MEF–Carrier Ethernet Certified Professional (MEF–CECP) in partnership with Tech 2000. MEF is the international industry consortium dedicated to adoption of Carrier Ethernet networks and services.

MEF–Carrier Ethernet Certified Professional 3.0

The MEF–Carrier Ethernet Certified Professional 3.0, or MEF–CECP 3.0, course and certification is designed for telecommunication professionals who want a 360-degree view of access technologies, transport technologies, standards, services, and applications of carrier Ethernet.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite, Virtual Classroom & Boot Camp (4 days)
VirtuLearn:
SCTE’s Partner Academy
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (4)
Recommended Prerequisite:
SCTE Business Class Services Specialist (BCSS) or equivalent
Value:
Prep for MEF Certification: MEF-CECP Blueprint “D”

Structured Cabling with Wirewerks

Wirewerks, is a developer and manufacturer of high-performance optical fiber and copper structured cabling systems. They have teamed up with us to offer a Fiber Structured Cabling course for Broadband Fiber Installers.

Fiber Structured Cabling for Broadband Fiber Installers

This onsite blended training boot camp course is designed to provide learners with the benefits of working with fiber to the premises (FTTP)/FTTx networks to service telecommunication customers. Learners will be able to describe the structured cabling, the organizations/standards involved and the types of passive optical networks (PON) used by telecommunication operators. Learners will be able to differentiate FTTP/FTTx networks from an HFC and Fiber Deep access network. Learners will identify the installation equipment and customer premises equipment (CPE) needed to support FTTP/FTTx networks, along with preparing fiber, working with multiple wavelengths, contrasting optical measurements, and troubleshooting FTTP/FTTx service issues.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite, Virtual Classroom & Boot Camp (2 days)
Individual Professionals:
Onsite ONLY
Additional Course Info:
SCTE Recertification Units (2)
Value:
Spanish (Yes)
Understanding Cybersecurity
The Understanding Cybersecurity course explores the field of cybersecurity, data confidentiality, best practices for using the Internet and social media safely. The course steps learners through security aspects in a broad, easy to understand way, explaining the value of securing data, both personal and business related.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite, Virtual Classroom & Boot Camp (1 day)
VirtuLearn:
SCTE’s Partner Academy
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (2)
Recommended Prerequisites:
None
Value:
Spanish (Yes), Portuguese (Yes)

Cybersecurity Essentials
The Cybersecurity Essentials course covers the knowledge and essentials skills in all security domains in the cyber world — information security, systems security, network security, mobile security, physical security, ethics and laws, related technologies, defense and mitigation techniques used in protecting businesses. In addition, the course introduces learners to characteristics of cybercrime, security principles, technologies, and develop security policies that comply with cybersecurity laws. Finally, procedures to implement data confidentiality, integrity, availability and security controls on networks, servers, and applications will be taught.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (4 days)
Boot Camp (3 days)
VirtuLearn:
SCTE’s Partner Academy
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (4)
Recommended Prerequisites:
CCNA2v7: Switching, Routing, and Wireless Essentials or equivalent
Value:
Prep for Cisco Certification: 210-260

NEW Network Security
Telecommunication organizations today are confronted with swiftly responding to emerging network security threats and concerns. Security personnel configure and monitor various network security threat mitigation measures, such as device hardening, intrusion prevention systems (IPS), and firewalls, to protect data assets and network systems from attack. The purpose of this course is to provide the skills, knowledge, and abilities in the field of network security. Learners in this course are exposed to the foundational knowledge required to respond to network security threats through various threat mitigation measures.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (4 days)
Boot Camp (3 days)
VirtuLearn:
SCTE’s Partner Academy
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (4)
Recommended Prerequisites:
CCNA2v7: Switching, Routing, and Wireless Essentials or equivalent
Value:
Prep for Cisco Certification: 210-260
Certified Wireless Security Professional

The Certified Wireless Security Professional (CWSP) course provides a deep understanding of the latest software, tools, trends and technologies available. Security professionals are often counted on to advise on security policies (i.e. password and acceptable use). Plus, these experts are responsible for configuring an entire network’s Security Design and Architecture. Learn discovery attack techniques, attack techniques, WIPS implementation, VPNs, 802.11 authentication, and security design models.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (4 days)
Boot Camp (3 days)

Individual Professionals:
Onsite ONLY

Additional Course Info:
SCTE Recertification Units (4)

Recommended Prerequisites:
SCTE Advanced Wireless - Certified Wireless Network Administrator (CWNA)

Value:
Prep for CWNP Certification: CWSP-206
Understanding Cable Technology

Understanding the technologies supporting today’s cable telecommunications architecture is critical to making informed business decisions, thus maximizing an organization’s potential. In addition to learning about the core hybrid-fiber coaxial (HFC) architecture, participants will learn about the technologies used to deliver high-speed data, video, IP telephony, as well as networking at the subscriber’s premises. This course will then explore how to hold it all together with operation and business support systems. In the conclusion, learners will get a glimpse of the future.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (2 days)
Boot Camp (1 day)
VirtuLearn:
LightningMods, eBooks, NetworkSims & VirtuGame
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (2)
Recommended Prerequisites:
None
Value:
Spanish (LightningMods, eBooks & VirtuGame)

Understanding Cloud Computing

This course provides the knowledge and characteristics of Cloud services from business perspective, technical perspectives, and Cloud types. In addition, steps to successful adoption of Cloud computing, along with impact and changes of Cloud computing on IT service management. Finally, the risk and consequences of Cloud computing will be explored.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (1 day)
Boot Camp (0.5 day)
VirtuLearn:
eBook(s)
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (1)
Recommended Prerequisites:
None
Value:
Spanish (Yes), Portuguese (Yes)

Understanding Wireless Networks

This course is designed to provide an awareness of wireless and Wi-Fi networks found in homes and small businesses. Learners will be able to describe the radio frequency (RF) signals and standards used in wireless and Wi-Fi networks, along with installations and mechanisms for managing the home network. Finally, the key devices for home security and lifestyle networks will be identified.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite, Virtual Classroom & Boot Camp (0.5 day)
VirtuLearn:
eBooks & NetworkSims
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (1)
Recommended Prerequisites:
SCTE Understanding Cable Technology or equivalent
Value:
Free for SCTE Members!
Understanding DOCSIS Technology

The Understanding DOCSIS Technology course provides the fundamental knowledge of how DOCSIS operates. This course covers the evolution of the standards, the signal requirements and the initialization process. These fundamentals prepare a broadband professional to install and troubleshoot DOCSIS devices.

COURSE DELIVERY METHODS:
Groups & Technical Teams: Boot Camp (1 day)
Individual Professionals: Onsite ONLY

Additional Course Info:
SCTE Recertification Units (1)
Recommended Prerequisites: SCTE Understanding Cable Technology or equivalent

Understanding Internet of Things

The Understanding Internet of Things (IoT) course provides an overview of the concepts and challenges of the transformational digital economy when people, process, data, and things connect. This course introduces the concept of a network foundation connecting billions of things and trillions of gigabytes of data to enhance decision making and interactions. Course modules describe how IoT drives the convergence between an organization’s operational technology and Information Technology (IT) systems, and the business processes for evaluating a problem and implementing an IoT solution. Machine-to-Machine (M2M), Machine-to-People (M2P) and People-to-People (P2P) connections in an IoT solution are also covered.

COURSE DELIVERY METHODS:
Groups & Technical Teams: Onsite, Virtual Classroom & Boot Camp (1 day)
Individual Professionals: Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)
Recommended Prerequisites: SCTE Understanding Network Technology or equivalent

Understanding IPv6 Technology

Understanding IPv6 Technology is the ultimate introductory course designed to provide participants with the fundamentals of IPv6 in telecommunication networks. This course explores the support needed and the benefits of transitioning from IPv4 to IPv6. It also provides an overview of IPv6 features and covers the many technologies behind the deployment and implementation of IPv6 from the core of the telecommunication network to the customer premises.

COURSE DELIVERY METHODS:
Groups & Technical Teams: Onsite & Virtual Classroom (2 days)
Additional Course Info: SCTE Recertification Units (1)
Recommended Prerequisites: SCTE Understanding Network Technology or equivalent

Understanding Mobility

Wireless and mobility technologies are essential skills for a career in networking during today’s digital transformation and economy. The Mobility Fundamentals course provides foundational wireless knowledge and skills. This course covers different technical aspect of wireless networking.

COURSE DELIVERY METHODS:
Groups & Technical Teams: Onsite & Virtual Classroom (1 day)
VirtuLearn: eBooks & NetworkSims/Packet Tracers
Individual Professionals: Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)
Recommended Prerequisites: None

Understanding Network Protocols and Routing

Understanding Network Protocols and Routing is an introductory course designed to provide participants with the fundamentals of IP networking and routing. IP networks have become the foundation for the networks used in the broadband industry. Understanding how the devices in the network are configured and the protocols they use is key when designing and maintaining these networks. This course covers the concepts of digital numbering and how it relates to IPv4 and IPv6 addressing. Participants will also learn about the purpose of protocols, networking addressing, routing, and IP video.

COURSE DELIVERY METHODS:
Groups & Technical Teams: Onsite & Virtual Classroom (1 day)
VirtuLearn: LightningMods, eBooks & VirtuGame
Individual Professionals: Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)
Recommended Prerequisites: None
Understanding Multiplexing

Understanding Multiplexing is an introductory course designed to provide participants with an overview of different multiplexing technologies used in the telecommunication industry. Understanding how these technologies work is key to understanding the way services are delivered to the customers. The course looks at the different versions of time division multiplexing, frequency division multiplexing and wave division multiplexing. We will also explore the basics of using fiber optics to transmit data.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (1 day)
Boot Camp (0.5 day)

VirtuLearn:
LightningMods, eBook & VirtuGame

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)

Recommended Prerequisites:
None

Understanding Cable Wide Area Networks

Understanding Cable Wide Area Networks is an introductory course designed to provide participants with an overview of the technologies used to create wide area networks. This course will cover the evolution of wide area networks from circuit-switched networks to packet-based networks. We will also explore the convergence of wide area networks and software-defined networks.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (1 day)
Boot Camp (0.5 day)

VirtuLearn:
LightningMods, eBook & VirtuGame

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)

Recommended Prerequisites:
None

TELECOMMUNICATION BASICS:

Are you new to telecommunications or a non-technical sales, marketing, or customer service professional? Learn telecommunication fundamentals to better connect yourself to our industry.
Digital Home Courses

SCTE prepares professionals for everything they need to know when it comes to today’s digital home technology. Learn core network skills through these courses on topics such as fiber, installation, IP, home networking, Wi-Fi, and more.

**Broadband Premises Installation Fundamentals**

The Broadband Premises Installation Fundamentals (BPIF) course provides the knowledge required to install voice, video, and data (DOCSIS, PON, Wi-Fi) services for residential telecommunications customers. The learner is introduced to industry telecommunication networks and installation, RF theory, aerial and underground installations, and bonding and grounding.

**COURSE DELIVERY METHODS:**

Groups & Technical Teams:  
Onsite & Virtual Classroom (3 days)  
Boot Camp (2 days)

VirtuLearn:  
LightningMods, eBooks, NetworkSim & VirtuGame

Individual Professionals:  
Self-Paced Online

Additional Course Info:  
SCTE Recertification Units (3)

Recommended Prerequisites:  
SCTE Understanding Cable Technology or equivalent

Value:  
Prep for SCTE Certification: BPI  
Spanish (LightningMods, eBooks & VirtuGame)

**NEW Broadband Premises Customer Service**

The Broadband Premises Customer Service course provides the knowledge required for customer interactions and how company image is affected in a service visit.

**COURSE DELIVERY METHODS:**

Groups & Technical Teams:  
Onsite & Virtual Classroom (1 day)  
Boot Camp (0.5 day)

VirtuLearn:  
LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals:  
Self-Paced Online

Additional Course Info:  
SCTE Recertification Units (0.5)

Recommended Prerequisites:  
SCTE Understanding Cable Technology or equivalent

Value:  
Prep for SCTE Certification: BPI  
Spanish (LightningMods, eBooks & VirtuGame)

**NEW Broadband Premises Installation Safety**

The Broadband Premises Installation Safety course provides the knowledge needed for safe work practices.

Broadband Premises Installation Fundamentals, Broadband Premises Customer Service and Broadband Premises Safety is offered as a single course called Broadband Premises Installation, Safety and Customer Service.

**COURSE DELIVERY METHODS:**

Groups & Technical Teams:  
Onsite & Virtual Classroom (1 day)  
Boot Camp (0.5 day)

VirtuLearn:  
LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals:  
Self-Paced Online

Additional Course Info:  
SCTE Recertification Units (0.5)

Recommended Prerequisites:  
SCTE Understanding Cable Technology or equivalent

Value:  
Prep for SCTE Certification: BPI  
Spanish (LightningMods, eBooks & VirtuGame)

**INTERESTED IN GETTING INDUSTRY CERTIFIED?**

Complete the following three courses and you will be ready for the Broadband Premises Installer (BPI) industry certification.

:: Broadband Premises Installation Fundamentals (BPIF)  
:: Broadband Premises Customer Service  
:: Broadband Premises Safety

We also offer a single course option for BPI called Broadband Premises Installation, Safety and Customer Service (BPI-SCS)
NEW Broadband Premises Installation and Service Learning Journey

The Broadband Premises Installation and Service interactive learning journey covers the knowledge required to install, maintain and troubleshoot triple-play services (video, voice, and data) for cable telecommunications customers. This interactive course includes delivering positive customer service, RF theory, troubleshooting, test equipment, common measurements, and service restoration related to industry-wide standards and practices. This learning journey also provides instruction in the latest technologies, such as Wi-Fi, home networking, passive optical networks, MoCA, and untethered devices. The learning journey is comprised of three courses: Broadband Premises Installation – Safety, Broadband Premises Installation – Customer Service, and Broadband Premises Installation – Fundamentals.

COURSE DELIVERY METHODS:
Groups & Technical Teams: Onsite & Virtual Classroom (4 days) Boot Camp (3 days)
VirtuLearn: LightningMods, eBooks, NetworkSims & VirtuGame
Individual Professionals: Self-Paced Online
Additional Course Info: SCTE Recertification Units (4)
Recommended Prerequisites: SCTE Understanding Cable Technology or equivalent
Value: Prep for SCTE Certification: BPT Spanish (eBooks & VirtuGame)

NEW Broadband Premises Troubleshooting

The Broadband Premises Troubleshooting course covers the knowledge required to maintain, troubleshoot, and install triple-play services. Participants will learn about the test equipment, and their functions used to make signal level readings, detect leakage, and troubleshoot issues. Learners will describe the divide and conquer troubleshooting process for maintaining customer services and resolving issues encountered in the telecommunication premises network. Specific troubleshooting issues related to Wi-Fi, video, voice, and data (DOCSIS 3.1/PON) will be addressed. Finally, telecommunication math equations will be presented, allowing learners to calculate property signal levels given customer scenarios.

COURSE DELIVERY METHODS:
Groups & Technical Teams: Onsite Classroom (4 days) Boot Camp (3 days)
VirtuLearn: eBooks, LightningMods & NetworkSims
Individual Professionals: Self-Paced Online
Additional Course Info: SCTE Recertification Units (4)
Value: Prep for SCTE Certification: BPT Spanish (eBooks & VirtuGame)

Electrical Fundamentals

The Electrical Fundamentals course offers learners a general understanding of the key elements, concepts, and terminology used around electrical components in a telecommunication network. Learners will practice electrical safety, recognize electrical math and operate tools used to assess electrical health in the network.

COURSE DELIVERY METHODS:
Groups & Technical Teams: Onsite Classroom & Boot Camp (2 days)
VirtuLearn: LightningMods, eBooks, NetworkSims & VirtuGame
Individual Professionals: Self-Paced Online
Additional Course Info: SCTE Recertification Units (2)
Recommended Prerequisites: SCTE Broadband Premises Installation Fundamentals (BPIF) or equivalent
Value: Preps for SCTE Certification: BFI Spanish (eBooks & VirtuGame)

Broadband Fiber Installation

The Broadband Fiber Installation (BFI) interactive course is designed to provide learners with the benefits of working with fiber to the premises (FTTP/FTTx networks) to service telecommunication customers. Learners will be able describe the types of passive optical networks (PON) used by telecommunication operators and differentiate these networks from an HFC and Fiber Deep access network. Learners will identify the installation equipment and customer premises equipment (CPE) needed to support FTTP/FTTx networks, along with preparing fiber, working with multiple wavelengths, contrasting optical measurements, and troubleshooting FTTP/FTTx service issues.

COURSE DELIVERY METHODS:
Groups & Technical Teams: Onsite, Virtual Classroom & Boot Camp (2 days)
VirtuLearn: LightningMods, eBooks, NetworkSims & VirtuGame
Individual Professionals: Self-Paced Online
Additional Course Info: SCTE Recertification Units (2)
Recommended Prerequisites: SCTE Broadband Premises Installation Fundamentals (BPIF) or equivalent
Value: Preps for SCTE Certification: BFI Spanish (eBooks & VirtuGame)

Broadband Wireless Specialist

The Broadband Wireless Specialist (BWS) interactive course is designed to provide a comprehensive understanding of wireless networks in homes and small businesses. Learners will gain an understanding of: wireless, Wi-Fi standards, Wi-Fi network devices, planning and implementation; security, RF basics, antenna theory, installation, and Wi-Fi troubleshooting.

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DOCSIS 3.1 Installation
The DOCSIS 3.1 Installation interactive course is designed for broadband installation professionals who need to better understand the elements and implementations of the DOCSIS 3.1 specification, as well as the differences and uniqueness from previous versions of DOCSIS. This engaging course defines the industry drivers for DOCSIS 3.1, modifications in the RF spectrum, feature enhancements, capacity improvements and details on modifications to the physical and media access control (MAC) layers. The course also allows installers to understand the operational implications, procedures for installation and methods used for troubleshooting DOCSIS 3.1.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (2 days)
Boot Camp (1 day)

VirtuLearn:
LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (2)

Recommended Prerequisites:
SCTE Broadband Premises Installation Fundamentals (BPIF) or equivalent

 Value:
Prep for SCTE Certification: BWS
Spanish (eBooks, VirtuGame & Professional Certification)

NEW Digital Telecommunication Network Fundamentals
The Digital Telecommunication Network Fundamentals interactive course is designed to provide a comprehensive understanding of digital video fundamentals and digital troubleshooting recommended practices. Learners will gain an understanding of digital video, switched digital video (SDV), digital media theory, signal modulation, signal demodulation and signal processing, bandwidth constraints and management; digital carrier measurements, and Moving Pictures Expert Group (MPEG) video technology. The course will conclude with proof of performance (POP) and CPE digital connections.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (3 days)
Boot Camp (2 days)

VirtuLearn:
LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (2)

Recommended Prerequisites:
SCTE Broadband Premises Installation Fundamentals (BPIF) or equivalent

Value:
Prep for SCTE Certification: BWS
Spanish (eBooks, VirtuGame & Professional Certification)

RF System Theory
The RF System Theory interactive course is designed to ensure learners record proper RF signal levels and verify RF quality within the various upstream and downstream portions of the telecommunication network. Learners will be able to distinguish between key attributes, assignments and the technologies that use RF. Learners will differentiate between the time and frequency domain to identify how transmission lines affect RF. Finally, learners will identify how to use power splitters, filters, directional couplers, and other RF passive devices correctly in the telecommunication network.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom (1 day)
Boot Camp (0.5 day)

VirtuLearn:
LightningMods, eBooks & VirtuGame

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)

NEW Ethernet Transport Essentials
Communications and data service growth are driving the demand for Ethernet services. Ethernet business services may vary from being a basic best-effort Internet service, like a traditional home cable modem, to a high-performance Ethernet service with guaranteed performance with SLA requirements for availability. The Ethernet Transport course gives technicians the working knowledge of Ethernet networks and standards. Learners will immerse themselves in layer two transport topics like pseudo-wires, Ethernet security/Mac-sec, and power over Ethernet.
Ethernet Forum standards like E-LAN, E-line, EVC, and testing SLA metrics for Ethernet links. Learners will better understand the products they’re installing at the customer premise that facilitate point-to-point, point-to-multipoint connections. They will also be able to troubleshoot data leaving the customer premise network and traveling over the operator’s network.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom (4 days)
Boot Camp (3 days)

VirtuLearn:
eBooks, LightningMods & NetworkSims

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)

Value:
Prep for SCTE Certification: BCSS

Structured Wiring

The Structured Wiring course describes the role and importance of structured wiring, design concepts, related standards, and guidelines. Learners will recognize the media used for copper-based and fiber-based installations, along with their associated standards. The course will describe cable prep, termination, splicing concepts, and proper performance monitoring of structured wiring.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Boot Camp (1 day)

VirtuLearn:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)

Essentials of Internet Protocol Networking

The Essentials of Internet Protocol Networking course is designed to provide telecommunication operator personnel the practical knowledge, application and problem solving of Internet Protocol version 4/6 (IPv4/6) addressing in telecommunication networks. Topics include Variable Length Subnet Masks (VLSM), subnetting, supernetting, and interdomain routing (CIDR).

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (1.5 days)
Boot Camp (1 day)

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)

Value:
Prep for SCTE Certification: BCSS

Network Specialist (CompTIA Network+)

The Network Specialist (CompTIA Network+) interactive course builds on foundational user-level knowledge, along with providing success with implementation, understanding of the industry standards, and grasp of core technologies needed to respond to the home networking and business market. The course brings value to the tele-communication operator by saving on training investments and providing a productive workforce to support the modern connect home and business network. The course content addresses both the wireless and the wired network.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom (4 days)
Boot Camp (3 days)

VirtuLearn:
LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (3)

Value:
Prep for CompTIA Certification: A+ 220-1001, 220-1002
Spanish (Yes), Portuguese (Yes)

Proactive Network Maintenance

The Proactive Network Maintenance (PNM) interactive course provides a general understanding of proactivity tools and techniques and how they apply to today’s networks. It details how technologies, such as pre-equalization, can be used to identify, locate and address plant problems. In addition, discover how full RF capture and spectrum analysis in DOCSIS modem chips can be used to identify plant impairments. Next generation tools, such as techniques to solve for non-linear distortion and benefits of orthogonal frequency division multiplexing (OFDM) within DOCSIS 3.1, will be reviewed.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite, Virtual Classroom & Boot Camp (1 day)

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (3)

Value:
Prep for CompTIA Certification: A+ 220-1001, 220-1002
Spanish (eBooks & VirtuGame)

Internet Protocol Television

The Internet Protocol Television (IPTV) course will begin with reviewing IP fundamentals and the standards associated with IP delivery. Learners will understand the delivery methods used by operators,
along with the digital compression techniques used to optimize bandwidth efficiency in the network. The course will describe modern technologies like adaptive bit rate (ABR) and dynamic adaptive streaming over HTTP (DASH). Finally, related skills in IP, structured cabling, and MoCA will be explored.

**COURSE DELIVERY METHODS:**

**Groups & Technical Teams:**
- Boot Camp (2 days)

**Individual Professionals:**
- Onsite ONLY

**Additional Course Info:**
- SCTE Recertification Units (2)

**Internet of Things Fundamentals: Connecting Things**

The Internet of Things (IoT) Fundamentals interactive course provides learners with a comprehensive understanding of IoT. The curriculum develops foundational skills using hands-on lab activities that stimulate the learners in applying creative problem-solving and rapid prototyping in the interdisciplinary domain of electronics, networking, security, data analytics, and business. The learner-centric approach translates into the learner being able to ideate, design, prototype and present an IoT solution for an identified business or society need.

IoT fundamentals: Connecting Things, focuses on identifying, designing, prototyping, and presenting an IoT solution that securely solves a current business or social problem.

**COURSE DELIVERY METHODS:**

**Groups & Technical Teams:**
- Onsite & Virtual Classroom (3 days)
- Boot Camp (2 days)

**VirtuLearn:**
- SCTE’s Partner Academy

**Individual Professionals:**
- Self-Paced Online

**Additional Course Info:**
- SCTE Recertification Units (3)

**Recommended Prerequisites:**
- SCTE Understanding Network Technology or equivalent

**Value:**
- Hands-on equipment configuration
- Spanish (Yes)
Telecommunication Coaxial and RF Network Courses

All you need to know to get started in telecommunication data communications is wrapped into these courses. Learn how to deploy, manage, and troubleshoot data across telecommunication networks.

RF System Theory
The RF System Theory interactive course is designed to ensure learners record proper RF signal levels and verify RF quality within the various upstream and downstream portions of the telecommunication network. Learners will be able to distinguish between key attributes, assignments and the technologies that use RF. Learners will differentiate between the time and frequency domain to identify how transmission lines affect RF. Finally, learners will identify how to use power splitters, filters, directional couplers, and other RF passive devices correctly in the telecommunication network.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom & Boot Camp (0.5 day)
VirtuLearn:
LightningMods, eBooks & VirtuGame
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (1)

Coax Splicer Specialist
The Coax Splicer Specialist (CSS) course draws upon SCTE's Recommended Practices for Coaxial Construction and Testing. Topics include hardline coaxial cable connectorization, system design, signals used in a telecommunication system, powering, aerial and underground coaxial cable construction, activation and testing, and relevant field safety topics. Learners will also understand the field practical skills like how to splice coaxial, connectorized coax, and proper testing techniques.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom & Boot Camp (2 days)
VirtuLearn:
eBooks
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (2)

Broadband Distribution Fundamentals
The Broadband Distribution Fundamentals (BDF) interactive course introduces the learner to Radio Frequency (RF) distribution of signals in the access network, preparing installers to become maintenance technicians. The access network, from the optical node to the distribution tap, is discussed in this course. Topics include an introduction to electronic theory, system architectures, power supplies, coaxial cable connectorization, and active and passive components. Test equipment used on outside plant maintenance and troubleshooting is introduced.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom (4 days)
Boot Camp (3 days)
VirtuLearn:
LightningMods, eBooks, NetworkSims & VirtuGame
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (4)
Recommended Prerequisites:
SCTE Broadband Premises Installation and Service
Value:
Spanish (eBooks & VirtuGame)

INTERESTED IN GETTING INDUSTRY CERTIFIED?
Complete SCTE Broadband Distribution Specialist (BDS) prep course and you will be ready for the Broadband Distribution Specialist (BDS) industry professional certification.

UPDATED Broadband Distribution Specialist (Maintenance Technician Coax)

The Broadband Distribution Specialist (BDS) course focuses on the RF distribution of signals in the access network. All aspects of the access network from the optical node to the distribution tap are included in this comprehensive training course. A learner
will learn about different network architectures, including HFC and distributed access architectures (DAA). They will gain a deep understanding of the components of an access network such as power supplies, active and passive devices. Additionally, the course will explore how signals operate in the access network and use system design calculations to verify proper signaling. The course discusses proper maintenance, troubleshooting, and construction practices, along with explaining the safety concerns while operating in this type of environment.

**COURSE DELIVERY METHODS:**

Groups & Technical Teams:
- Onsite & Virtual Classroom (5 days)
- Boot Camp (4 days)

VirtuLearn:
- LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals:
- Self-Paced Online

Additional Course Info:
- SCTE Recertification Units (5)

Recommended Prerequisites:
- SCTE Broadband Premises Installation Fundamentals (BPIF) or equivalent

Value:
- Prep for SCTE Certification: BDS
- Spanish (eBooks, VirtuGame & Professional Certification)

**Construction Inspector Specialist**

The access network goes through four primary cycles in its lifespan. The first cycle is the design process, then there is the construction of the access network. The next two periods are maintenance and upgrade. The maintenance cycle is the longest-running cycle of an access network. The work being performed during maintenance and upgrades must be up to national and local standards. It will be up to the Construction Inspector Specialist to scrutinize ongoing changes to the access network and confirm the system complies with requirements and standards. The Construction Inspector Specialist course will introduce inspectors to construction techniques used in the aerial and underground access network. The course will provide learners the knowledge of national and local compliant standards.

**COURSE DELIVERY METHODS:**

Groups & Technical Teams:
- Onsite, Virtual Classroom & Boot Camp (2 days)

VirtuLearn:
- LightningMods, eBooks, NetworkSim & VirtuGame

Individual Professionals:
- Self-Paced Online

Additional Course Info:
- SCTE Recertification Units (2)

Recommended Prerequisites:
- SCTE Broadband Premises Installation Fundamentals (BPIF) or equivalent

**Coaxial Construction**

The Coax Construction course draws upon SCTE’s Recommended Practices for Coaxial Construction and Testing. Topics include system design, coaxial cable connectorization, powering, aerial and underground telecommunication construction, activation and testing, and relevant field safety topics.

**COURSE DELIVERY METHODS:**

Groups & Technical Teams:
- Onsite Classroom & Boot Camp (1 day)

Individual Professionals:
- Self-Paced Online

Additional Course Info:
- SCTE Recertification Units (1)

Recommended Prerequisites:
- SCTE Broadband Premises Installation Fundamentals (BPIF) or equivalent

Value:
- Spanish (eBooks & VirtuGame)

**Return Path**

The Return Path course focuses on design, setup and troubleshooting of the reverse system in a telecommunication access network. Topics discussed include signaling and transmission, return path components, differences between the downstream and upstream, troubleshooting, balancing the return path, long loop automatic level control (ALC), return path signaling, and return path optimization.

**COURSE DELIVERY METHODS:**

Groups & Technical Teams:
- Onsite & Virtual Classroom (2 days)
- Boot Camp (1 day)

Individual Professionals:
- Self-Paced Online

Additional Course Info:
- SCTE Recertification Units (3)

Recommended Prerequisites:
- SCTE Broadband Premises Installation Fundamentals (BPIF) & SCTE Broadband Distribution Fundamentals; or equivalent

**Distributed Access Architecture Essentials**

Operators are changing their access network architectures to keep pace with the demand from residential, commercial and wireless customers. Technologies, like FTTx, and the move to distribute access architectures (DAA) will increase the amount of traffic on a telecommunication network. There a couple of DAA architectures available to the operators for deployment in today’s network. The Distributed Access Architecture Essentials course covers the evolution of the hybrid fiber coaxial (HFC) access network to accommodate higher bandwidth. The course provides the essential knowledge for learners in remote PHY and remote MAC/PHY architectures. Finally, upgrades at the node and modification in the head-end are examined throughout the course.

**COURSE DELIVERY METHODS:**

Groups & Technical Teams:
- Onsite Classroom (3 days)
- Boot Camp (2 days)

VirtuLearn:
- LightningMods, eBooks, NetworkSims & VirtuGames

Individual Professionals:
- Self-Paced Online

Additional Course Info:
- SCTE Recertification Units (3)

Recommended Prerequisites:
- SCTE Broadband Premises Installation Fundamentals (BPIF) & SCTE Broadband Distribution Fundamentals; or equivalent
DOCSIS Courses
Understand the DOCSIS technology and specifications. Learn its capabilities and benefits while discovering how to implement DOCSIS across telecommunication networks.

Understanding DOCSIS Technology
The Understanding DOCSIS Technology course provides the fundamental knowledge of how DOCSIS operates. This course covers the evolution of the standards, the signal requirements and the initialization process. These fundamentals prepare a broadband professional to install and troubleshoot DOCSIS devices.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Boot Camp (1 day)
Individual Professionals:
Onsite ONLY
Additional Course Info:
SC TE Recertification Units (1)
Recommended Prerequisites:
None

Digital Basics and DOCSIS Fundamentals
Discover the models at work in deploying data over telecommunications networks in this course. Learn the principles of digital signals and data transmission, for a better understanding of data transport protocols over local and Wide Area Networks (WANs). Learners discuss the benefits of digital, calculate analog-to-digital-conversion, and examine digital modulation techniques as well as High-Speed Data (HSD) over telecommunication networks using various specifications of DOCSIS.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom (2 days)
Boot Camp (1 day)
Individual Professionals:
Onsite ONLY
Additional Course Info:
SC TE Recertification Units (2)
Recommended Prerequisites:
None

DOCSIS 3.1 Essentials
DOCSIS 3.1 Essentials course prepares broadband professionals with a better understanding of the elements and implementations of DOCSIS 3.1 in the telecommunication network as well as the differences and uniqueness from previous versions of DOCSIS. This course provides an overview of the vast changes that DOCSIS 3.1 offers, goes into details on modifications to the Physical (PHY) and Media Access Control (MAC) layers and discusses the operational implications of deploying it.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom (1 day)
Boot Camp (0.5 day)
Individual Professionals:
Self-Paced Online
Additional Course Info:
SC TE Recertification Units (1)
Recommended Prerequisites:
SC TE Understanding DOCSIS Technology or equivalent

DOCSIS 3.1 Installation
The DOCSIS 3.1 Installation interactive course is designed for broadband installation professionals who need to better understand the elements and implementations of the DOCSIS 3.1 specification, as well as the differences and uniqueness from previous versions of DOCSIS. This engaging course defines the industry drivers for DOCSIS 3.1, modifications in the RF spectrum, feature enhancements, capacity improvements and details on modifications to the physical and media access control (MAC) layers. The course also allows installers to understand the operational implications, procedures for installation and methods used for troubleshooting DOCSIS 3.1.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom (2 days)
Boot Camp (1 day)
VirtuLearn:
LightningMods, eBooks, NetworkSims & VirtuGame
Individual Professionals:
Self-Paced Online
Additional Course Info:
SC TE Recertification Units (2)
Recommended Prerequisites:
SC TE Broadband Premises Installation Fundamentals (BPIF) or equivalent
Value:
Spanish (eBooks & VirtuGame)
DOCSIS 4.0

Operators are upgrading their access network architectures to keep up with the pace of bandwidth consumption from their commercial and residential customers. CableLabs released DOCSIS 4.0, which will allow for an increased amount of traffic on the access network. DOCSIS 4.0 does this by introducing full-duplex communication in the downstream spectrum of the cable operator’s broadcast. The biggest bottleneck in DOCSIS communication is the limited amount of spectrum used for upstream traffic in the traditional hybrid fiber-coaxial access network. DOCSIS 4.0 opens the door for operators to provide symmetrical cable modem speeds in the range of 1 to 10 Gb per second in both upstream and downstream communications. This course provides the essential knowledge for learners in physical layer changes, Mac layer changes, and security changes that the DOCSIS 4.0 specification introduces.

**COURSE DELIVERY METHODS:**
- Groups & Technical Teams:
  - Onsite Classroom (4 days)
  - Boot Camp (3 days)
- VirtuLearn:
  - LightningMods, eBooks, NetworkSims & VirtuGame
- Individual Professionals:
  - Self-Paced Online
- Additional Course Info:
  - SCTE Recertification Units (4)
- Recommended Prerequisites:
  - SCTE Broadband Distribution Specialist (BDS)
  - SCTE Broadband Transport Specialist (BTS); or equivalent
- Value:
  - Prep for SCTE Certification: DEP

DOCSIS 3.1 Boot Camp

The SCTE DOCSIS 3.1 Boot Camp is for engineers to gain a solid understanding of the circumstances involved with deploying DOCSIS 3.1 in broadband networks. The program begins with a pre-test, allowing learners to assess their existing DOCSIS knowledge. The pre-test results will point learners to eLearning modules to address gaps in knowledge, allowing learners to have a solid foundation and background for the actual boot camp training. The boot camp is focused on application exercises to ensure that learners walk away, not just with conceptual knowledge, but with the ability to immediately apply their practical skills on the job. The engineering focused program will be delivered in conjunction with two brief eLearning modules for the field.

Topics covered in the DOCSIS 3.1 Boot Camp include the following:
- The first section contains a primer on DOCSIS 3.1 and fundamentals of DOCSIS 3.1 downstream operation. Should learners not successfully complete the pre-test at this stage, they are offered mini courses to give them a background on the physical (PHY) layer, on PHY modulation and multiple access technology, MAC data-link layer, and modem initialization.
- The second section of the DOCSIS Boot Camp consists of a deep dive in the classroom portion of the boot camp. Herein the following topics are covered: deploying DOCSIS 3.1, detailed initialization procedures, the end-to-end process with respect to DOCSIS 3.1, new frequency plan enhancements, Next Code-word Pointers (NCP) and changes with respect to service groups, MAC domains, profiles, ranging and probing and initialization steps. In addition, orthogonal frequency division multiplexing (OFDM) in action, PHY/OFDM plant testing, spectrum analysis, OFDM generated by test equipment vendors, demonstration of OFDM testing, overall DOCSIS 3.1 testing, explaining advanced troubleshooting, aggregated routing, capacity, hardware, and DOCSIS 3.1 installation.

Finally, the boot camp classroom covers deployment, modem provisioning, cable modem termination system (CMTS) configuration, show commands of CMTS vendor platforms, network maintenance and Proactive Network Maintenance (PNM) in DOCSIS 3.1, troubleshooting network and plant issues using new DOCSIS 3.1 tools, monitoring, and testing approaches. The classroom portion of the class is followed by a third section including follow-up activities and digital games emphasizing key points to remember, data input/command examples, implementation and troubleshooting tips, and opportunities to follow-up with the course presenters in threaded discussions and webinars.

**COURSE DELIVERY METHODS:**
- Groups & Technical Teams:
  - Onsite & Virtual Classroom (4 days)
  - Boot Camp (3 days)
- VirtuLearn:
  - LightningMods, eBooks, NetworkSims & VirtuGame
- Individual Professionals:
  - Self-Paced Online
- Additional Course Info:
  - SCTE Recertification Units (4)
- Recommended Prerequisites:
  - SCTE Broadband Distribution Specialist (BDS)
  - SCTE Broadband Transport Specialist (BTS); or equivalent
- Value:
  - Pre-requisite Content & German (Yes)
Proactive Network Maintenance

The Proactive Network Maintenance (PNM) interactive course provides a general understanding of proactivity tools and techniques and how they apply to today’s networks. It details how technologies, such as pre-equalization, can be used to identify, locate, and address plant problems. In addition, discover how full RF capture and spectrum analysis in DOCSIS modem chips can be used to identify plant impairments. In addition, next generation tools, such as techniques to solve for non-linear distortion and benefits of orthogonal frequency division multiplexing (OFDM) within DOCSIS 3.1, will be reviewed.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite, Virtual Classroom & Boot Camp (1 day)

VirtuLearn:
LightningMods, eBooks, NetworkSim & VirtuGame

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)

Value:
Spanish (eBooks & VirtuGame)
Telecommunication Networking Courses

Understanding Network Technology
Understanding Network Technology is the ultimate introductory course designed to provide participants with the fundamentals of networking. This course covers the concepts for LAN and WAN networks, their architecture and network components. In addition to learning the core concepts, participants will learn the purpose of protocols, networking addressing, and overview of digital media.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (1.5 days)
Boot Camp (1 day)
VirtuLearn:
LightningMods, eBooks & VirtuGame
Additional Course Info:
SCTE Recertification Units (1)

Essentials of Internet Protocol Networking
This course is designed to provide telecommunication operator personnel the practical knowledge, application and problem solving of Internet Protocol version 4/6 (IPv4/6) addressing in telecommunication networks. Topics include Variable Length Subnet Masks (VLSM), subnetting, supersubnetting, and interdomain routing (CIDR).

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (2 days)
Boot Camp (1 day)
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (2)

IPv6: Impact on Cable Networks
This course provides details on the capabilities of IPv6 and DOCSIS 3.x, as well as the roles they play in the telecommunication network management process, the rollout aspects of IPv6 implementation, DOCSIS 3.x integration, configuration, provisioning and trouble-shooting network components, and the impact on telecommunication networks.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (2 days)
Boot Camp (1 day)
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (2)

Network Specialist (CompTIA Network+)

The SCTE Network Specialist (CompTIA Network+) online course builds on foundational user-level knowledge, along with providing success with implementation, understanding of the industry standards, and grasp of core technologies needed to respond to the home networking and business market. The course brings value to the telecommunication operator by saving on training investments and providing a productive workforce to support the modern connected home and business network. The course content addresses both the wireless and the wired network.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (4 days)
Boot Camp (3 days)
VirtuLearn:
LightningMods, eBooks & VirtuGame
Additional Course Info:
SCTE Recertification Units (3)

Understanding Cable Wide Area Networks
Understanding Cable Wide Area Networks is an introductory course designed to provide participants with an overview of the technologies used to create wide area networks. This course will cover the evolution of wide area networks from circuit-switched networks to packet-based networks. We will also explore the convergence of wide area networks and software-defined networks.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (2 days)
Boot Camp (1 day)
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (2)
Understanding Network Protocols and Routing

Understanding Network Protocols and Routing is an introductory course designed to provide participants with the fundamentals of IP networking and routing. IP networks have become the foundation for the networks used in the broadband industry. Understanding how the devices in the network are configured, and the protocols they use, is key when designing and maintaining these networks. This course covers the concepts of digital numbering and how it relates to IPv4 and IPv6 addressing. Participants will also learn about the purpose of protocols, networking addressing, routing, and IP video.

**COURSE DELIVERY METHODS:**
- Groups & Technical Teams: Onsite, Virtual Classroom & Boot Camp (1 day)
- VirtuLearn: LightningMod and eBooks
- Individual Professionals: Self-Paced Online

**Additional Course Info:**
- SCTE Recertification Units (1)

**CISCO CERTIFIED NETWORK ASSOCIATE (CCNA):**

**NEW CCNA1v7 – Introduction to Networks**

CCNA1v7: Introduction to Networks for telecommunication professionals is the first of three courses that are used to prepare for the Cisco Certified Network Associate (CCNA) exam. This course also prepares individuals for the SCTE Internet Protocol Engineering Professional (IPEP) Industry certification.

CCNA 1 introduces SCTE learners to fundamental networking concepts and technologies using a hands-on approach. Programming, cabling and installing routers, L2/L3 switches, IP configuration and other network equipment, with an emphasis on telecommunication operations.

In addition, the course will assist learners in developing the necessary skills to plan and implement small networks across a range of applications. An advanced understanding of TCP/IP, architectures, topologies, OSI model layers, and network designs will be explored throughout the course. SCTE courses emphasize critical thinking, problem solving, collaboration, and the practical application of skills.

By the end of this course, the learner will be able to build LANs, perform configurations for routers and switches, and implement IP addressing schemes in both IPv4 and IPv6.

**COURSE DELIVERY METHODS:**
- Groups & Technical Teams: Onsite & Virtual Classroom (4 days)
- Boot Camp (3 days)
- VirtuLearn: SCTE’s Partner Academy
- Individual Professionals: Self-Paced Online with Cisco Certified Academy Instructor (CCAI)
- Additional Course Info: SCTE Recertification Units (4)
- Recommended Prerequisites: SCTE Understanding Network Technology or Network Specialist (CompTIA Network+ 007)
- Value: Prep for Cisco Certification: CCNA 200-301, Hands-on equipment configuration, CCNA exam discount
- Spanish (Yes), Portuguese (Yes)

**NEW CCNA2v7 - Switching, Routing, and Wireless Essentials**

CCNA2v7: Switching, Routing, and Wireless Essentials (SRWE) for telecommunication professionals is the second of three courses that are used to prepare for the Cisco Certified Network Associate (CCNA) exam. This course also prepares individuals for the SCTE Internet Protocol Engineering Professional (IPEP) Industry certification.

CCNA2v7 introduces SCTE learners to architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts using a hands-on approach, with an emphasis on telecommunication operations. In addition, the course will assist learners with configuring and troubleshooting routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks. SCTE courses emphasize critical thinking, problem solving, collaboration, and the practical application of skills.

By the end of this course, learners will be able to configure and troubleshoot VLANs and inter-VLAN routing on Layer 3 devices. In addition, configure spanning tree protocol, EtherChannel, dynamic addressing, first-hop redundancy protocols, IPv4/IPv6 routing, wireless LANs, and implement security best practices.

**COURSE DELIVERY METHODS:**
- Groups & Technical Teams: Onsite & Virtual Classroom (4 days)
- Boot Camp (3 days)
- VirtuLearn: SCTE’s Partner Academy
- Individual Professionals: Self-Paced Online with Cisco Certified Academy Instructor (CCAI)
- Additional Course Info: SCTE Recertification Units (4)
- Recommended Prerequisites: CCNA1v7: Introduction to Networks
- Value: Prep for Cisco Certification: CCNA 200-301, Hands-on equipment configuration, CCNA exam discount
- Spanish (Yes), Portuguese (Yes)

**CCNA ROUTING & SWITCHING PREP COURSES:**

**NEW CCNA3v7 - Enterprise Networking, Security, and Automation**

CCNA3v7: Enterprise Networking, Security, and Automation (ENSA) for telecommunication professionals is the third and final course that is used to prepare for
the Cisco Certified Network Associate (CCNA) exam. This course also prepares individuals for the SCTE Internet Protocol Engineering Professional (IPEP) Industry certification.

CCNA3v7 introduces SCTE learners to the architecture, components, operations, and security to scale for large, complex networks, including wide area network (WAN) technologies. The course emphasizes network security concepts and introduces network virtualization and automation. Learners will configure, troubleshoot, and secure enterprise network devices and understand how application programming interfaces (API) and configuration management tools enable network automation. SCTE courses emphasize critical thinking, problem solving, collaboration, and the practical application of skills.

By the end of this course, learners will be able to configure routing, mitigate threats, provide IP address scalability, secure remote access for WANs, troubleshoot, implement QoS and implement protocols to manage the network. In addition, explain how technologies such as virtualization, software defined networking, and automation affect evolving networks.

**COURSE DELIVERY METHODS:**

**Groups & Technical Teams:**
Onsite & Virtual Classroom (4 days)
Boot Camp (3 days)

**VirtuLearn:**
SCTE’s Partner Academy

**Individual Professionals:**
Self-Paced Online with Cisco Certified Academy Instructor (CCAI)

**Additional Course Info:**
SCTE Recertification Units (4)

**Recommended Prerequisites:**
CCNA2v7: Switching, Routing, and Wireless Essential; CCNA2v6 Learners Register for SCTE’s CCNAv7 Bridge Course

**Value:**
Prep for Cisco Certification: CCNA 200-301, Hands-on equipment configuration, CCNA exam discount
Spanish (Yes), Portuguese (Yes)
**Wireless and Wi-Fi Courses**

**Understanding Mobility**
Wireless and mobility technologies are essential skills for a career in networking during today’s digital transformation and economy. The Mobility Fundamentals course provides foundational wireless knowledge and skills. This course covers different technical aspect of wireless networking.

**COURSE DELIVERY METHODS:**
- **Groups & Technical Teams:** Onsite & Virtual Classroom (1.5 days) Boot Camp (1 day)
- **VirtuLearn:** SCTE’s Partner Academy
- **Individual Professionals:** Self-Paced Online

**Additional Course Info:**
- SCTE Recertification Units (2)

**Recommended Prerequisites:** None

**Broadband Wireless Specialist**
The Broadband Wireless Specialist (BWS) course is designed to provide a comprehensive understanding of wireless networks in homes and small businesses. Learners will gain an understanding of wireless, Wi-Fi standards, Wi-Fi network devices, planning and implementation; security, RF basics, antenna theory, installation, and Wi-Fi troubleshooting.

**COURSE DELIVERY METHODS:**
- **Groups & Technical Teams:** Onsite Classroom & Boot Camp (2 days)
- **VirtuLearn:** LightningMods, eBooks, NetworkSims & VirtuGame
- **Individual Professionals:** Self-Paced Online

**Additional Course Info:**
- SCTE Recertification Units (2)

**Recommended Prerequisites:**
- SCTE Broadband Premises Installation and Service

**Value:**
- Prep for SCTE Certification: BWS
- Prep for CWNP Certification: CWS-100
- Spanish (eBooks, VirtuGame & Professional Certification)

**New Certified Wireless Specialist/SCTE Broadband Wireless Specialist**
The Certified Wireless Specialist (CWS) course provides intermediate knowledge that builds on foundational premises broadband wireless knowledge and is designed for learners advancing with wireless in the telecommunication industry. From RF theory, security and regulatory requirements to implementation of Wireless Local Area Network (WLAN) devices, this course focuses on bringing Wi-Fi technical professionals up-to-speed on the latest in 802.11 technologies in a practical way, along with the related wireless activities in the telecommunication industry.

**COURSE DELIVERY METHODS:**
- **Groups & Technical Teams:** Onsite & Virtual Classroom (2 days) Boot Camp (1 day)
Problem resolution. or through remote communications in basic problems and assist users in-person connectivity. The learner can troubleshoot configuration, enable security and provide based on design document, set WLAN allows learners to install wireless services.

NEW Certified Technician Specialist/SCTE Broadband Wireless Specialist

The Certified Wireless Technician (CWT) course allows learners to install wireless services based on design document, set WLAN configuration, enable security and provide connectivity. The learner can troubleshoot basic problems and assist users in-person or through remote communications in problem resolution.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (2 days)
Boot Camp (1 day)

Individual Professionals:
Self-Paced Online (SCTE BWS)

Additional Course Info:
SCTE Recertification Units (2)

Recommended Prerequisites:
Certified Wireless Specialist or equivalent

Value:
Prep for SCTE Certification: BWS
Prep for CWNP Certification: CWS-100
Spanish (eBooks, VirtuGame & Professional Certification)

NEW Advanced Wireless – Certified Wireless Network Administrator (CWNA)

The Advanced Wireless Certified Wireless Network Administrator (CWNA) course provides advanced knowledge of RF behavior, modulation, signal loss, and operating channels. It describes the features and functions of Wireless Local Area Network (WLAN) components. The course also explores the local, regional, and international standards for RF power regulations and the RF math required for calculating units of measure. Participants will gain the skills to successfully perform a validation survey, installation, and administration of enterprise Wi-Fi networks. The course will also focus on mastering the skills required to install, administer, configure and troubleshoot WLAN hardware peripherals and protocols. Finally, safety concerns will be addressed as well as antenna theory, cabling, and connectorization.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (4 days)
Boot Camp (3 days)

Individual Professionals:
Onsite ONLY

Additional Course Info:
SCTE Recertification Units (4)

Recommended Prerequisites:
SCTE Broadband Wireless Specialist or equivalent

Value:
Prep for CWNP Certification: CWISA-101

NEW Certified Wireless IoT Solutions Administrator

The Certified Wireless IoT Solutions Administrator (CWISA) course allows learners to grasp the most frequently used wireless solutions in organizations. The Internet of Things (IoT), Bluetooth Low Energy (BLE), Cellular Solutions (LTE, LTE-U, 5G, CBRS), Machine to Machine Communications (M2M), Zigbee, Location Services, and Wired-Side Supporting Technologies will be explored. In addition, a high-level awareness of APIs, automation/integration concepts and project management specific to wireless solutions.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (4 days)
Boot Camp (3 days)

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (4)

Recommended Prerequisites:
SCTE Broadband Wireless Specialist or equivalent

Value:
Prep for CWNP Certification: CWISA-101

Certified Wireless Analysis Professional

The Certified Wireless Analysis Professional (CWAP) course provides an understanding of the frame structures and exchange processes for each of the 802.11 series of standards and how to use the tools that are available for analyzing and troubleshooting WLAN spectrum and protocols.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (3 days)
Boot Camp (2 days)

Individual Professionals:
Onsite ONLY

Additional Course Info:
SCTE Recertification Units (3)

Recommended Prerequisites:
SCTE Broadband Wireless Specialist or equivalent

Value:
Prep for CWNP Certification: CWAP-301

Certified Wireless Design Professional

The Certified Wireless Design Professional (CWDP) course provides the knowledge to design an enterprise network, architecture and implement protocols of WLAN. In addition, learners will conduct site surveys, design security, and validate a WLAN.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (3 days)
Boot Camp (2 days)

Individual Professionals:
Onsite ONLY

Additional Course Info:
SCTE Recertification Units (3)

Recommended Prerequisites:
SCTE Broadband Wireless Specialist, Advanced Wireless–Certified Wireless Network Administrator (CWNA) or equivalent

Value:
Prep for CWNP Certification: CWDP-303
Telecommunication Fiber Network Courses

Fiber technical professionals working in the passive optical or access network can learn to prepare, plan, and deploy new service extensions through SCTE’s in-depth knowledge of today’s diverse networks.

Understanding Multiplexing

Understanding Multiplexing is an introductory course designed to provide participants with an overview of different multiplexing technologies used in the telecommunication industry. Understanding how these technologies work is key to understanding the way services are delivered to the customers. The course looks at the different versions of time division multiplexing, frequency division multiplexing, and wave division multiplexing. We will also explore the basics of using fiber optics to transmit data.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (1 day)
Boot Camp (0.5 day)
VirtuLearn:
LightningMods & eBooks
Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (1)

Broadband Fiber Installation

The Broadband Fiber Installation (BFI) interactive course is designed to provide learners with the benefits of working with Fiber to the Premises (FTTP) networks to service telecommunication customers. Learners will be able to describe the types of Passive Optical Networks (PON) used by telecommunication operators and differentiate these networks from an HFC and Fiber Deep access network. Learners will identify the installation equipment and Customer Premises Equipment (CPE) needed to support FTTP networks, along with preparing fiber, working with multiple wavelengths, contrasting optical measurements, and troubleshooting FTTP service issues.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom & Boot Camp (3 days)
Individual Professionals:
Onsite ONLY

Additional Course Info:
SCTE Recertification Units (2)

Recommended Prerequisites:
SCTE Broadband Premises Installation and Services or equivalent

Value:
Prep for SCTE Certification: BFI

Navigating the Fiber to the X (FTTx) Roadmap

This Navigating the Fiber to the X (FTTx) Roadmap course provides essential knowledge for access network folks in FTTx standard organizations, passive optical network (PON) technologies used in FTTx, and the architectures used by telecommunication operators. This course includes knowledge of RF over Glass (RFoG), Ethernet passive optical network (EPON), gigabit passive optical network (GPON), XGS-PON (10G symmetrical) architectures, and explores the role of DOCSIS Provisioning of xPON (DPoE/DPoG). Finally, learners will be able to identify the equipment, along with the optical fiber types, optical bands, multiplexing techniques, and wavelengths consumed to deploy FTTx solutions.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom (3 days)
Boot Camp (2 days)
Individual Professionals:
Onsite ONLY

Additional Course Info:
SCTE Recertification Units (2)

Recommended Prerequisites:
SCTE Broadband Premises Installation and Services or equivalent

Value:
Prep for SCTE Certification: BFI

Ethernet Passive Optical Network

The Ethernet Passive Optical Network or EPON course provides essential knowledge of using an Ethernet passive architecture to deliver a fiber to the home or fiber to the x (FTTH/FTTx) system, along with telecommunication services such as video, voice, and data. Learners will be able to identify the benefits, features, and components, along with differentiating the technology from a hybrid fiber coaxial...
recognize the types of impairments that can impact the performance of a network. The learner will also understand the operation of amplifiers in the RF portion of the HFC network, as well as optical signal performance and optical measurements.

**COURSE DELIVERY METHODS:**
- **Groups & Technical Teams:** Onsite & Virtual Classroom (3 days)
- **Boot Camp:** 2 days
- **VirtuLearn:** LightningMods, eBooks, NetworkSim & VirtuGame
- **Individual Professionals:** Self-Paced Online
- **Additional Course Info:** SCTE Recertification Units (3)
- **Recommended Prerequisites:** SCTE Broadband Transport Specialist or equivalent

**FTTx Splicer Specialist**

The FTTx Splicer Specialist course will provide learners with the benefits of working with fiber to the premises (FTTP)/FTTx and Fiber Deep (Node + 0) networks to service telecommunication customers. Learners will be able describe the types of passive optical networks (PON) used by telecommunication operators and differentiate these networks from an HFC and Fiber Deep access network. The course also addresses the topics fiber prep, fusion/mechanical splicing, fiber cleaning, and testing.

**COURSE DELIVERY METHODS:**
- **Groups & Technical Teams:** Onsite, Virtual Classroom & Boot Camp (2 days)
- **VirtuLearn:** LightningMods & eBooks
- **Individual Professionals:** Self-Paced Online
- **Additional Course Info:** SCTE Recertification Units (2)
- **Recommended Prerequisites:** SCTE Broadband Premises Installation Fundamentals or equivalent

**Telecommunication Engineering 101**

The Telecommunications Engineering 101 interactive course focuses on the RF signal and the factors that impact the performance of an HFC network. A learner will gain knowledge of RF signals, along with their electrical properties. Learners will

**COURSE DELIVERY METHODS:**
- **Groups & Technical Teams:** Onsite & Virtual Classroom (5 days)
- **Boot Camp:** 4 days
- **VirtuLearn:** LightningMods, eBooks, NetworkSim & VirtuGame
- **Individual Professionals:** Self-Paced Online
- **Additional Course Info:** SCTE Recertification Units (5)
- **Recommended Prerequisites:** SCTE Maintenance Technology Level 1 and SCTE Network Testing and Maintenance Level 1; SCTE Broadband Distribution Specialist or equivalent

**Value:**
- Prep for SCTE Certification: BTS
- Spanish (eBooks & VirtuGame)

**Optical Cable Construction**

The Optical Fiber Construction course is based upon SCTE’s Recommended Practices for Optical Fiber Construction and Testing. Topics include fiber design and application, optical power budgets, cable preparation, splices and connectors, optical cable construction and restoration, leakage/LTE Interference measurement, conducting acceptance testing of a broadband optical link, and relevant field safety topics.

**COURSE DELIVERY METHODS:**
- **Groups & Technical Teams:** Onsite Classroom & Boot Camp (1 day)
- **Individual Professionals:** Self-Paced Online
- **Additional Course Info:** SCTE Recertification Units (1)
- **Recommended Prerequisites:** SCTE Broadband Transport Specialist or equivalent

**Value:**
- Prep for SCTE Certification: BTS
- Spanish (eBooks & VirtuGame)

**INTERESTED IN GETTING CERTIFIED?**

SCTE Internet Protocol Engineering Professional (IPEP) is a comprehensive industry certification that covers IP networks.
Fiber Restoration
The Fiber Restoration course is designed to provide the knowledge required for restoring optical services in a safe and timely manner. Topics include optical safety, restoration techniques, responding to optical outages, preparing the fiber, and splices. The final portion of the course will explore the equipment used to perform optical testing to verify optical restoration.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom (1.5 days)
Boot Camp (1 day)

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (3)

Recommended Prerequisites:
SCTE Broadband Premises Installation and Services & SCTE Broadband Distribution Fundamentals; or equivalent

VirtuLearn:
LightningMods, eBooks, NetworkSim & VirtuGame

Distributed Access Architecture Essentials
Operators are changing their access network architectures to keep pace with the demand from residential, commercial, and wireless customers. Technologies, like FTTx, and the move to distribute access architectures (DAA) will increase the amount of traffic on a telecommunication network. There are a couple of DAA architectures available to the operators for deployment in today's network. The Distributed Access Architecture Essentials course covers the evolution of the hybrid fiber coaxial (HFC) access network to accommodate higher bandwidth. The course provides the essential knowledge for learners in remote PHY and remote MAC/PHY architectures. Finally, upgrades at the node and modification in the headend are examined throughout the course.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (3 days)
Boot Camp (2 days)
IP Courses

Internet Protocol (IP) is critical for the telecommunication engineers and technicians who support the IP infrastructure for video, voice, and data systems. Learn telecommunication specific IP routing, switching and the advanced IP knowledge you need to succeed with these courses.

Essentials of Internet Protocol Networking

This course is designed to provide telecommunication operator personnel the practical knowledge, application, and problem solving of Internet Protocol version 4/6 (IPv4/6) addressing in telecommunication networks. Topics include Variable Length Subnet Masks (VLSM), subnetting, supernetting, and interdomain routing (CIDR).

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (1.5 days)
Boot Camp (1 day)
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (2)

IPv6: Impact on Cable Networks

This course provides details on the capabilities of IPv6 and DOCSIS 3.x, as well as the roles they play in the telecommunication network management process, the rollout aspects of IPv6 implementation, DOCSIS 3.x integration, configuration, provisioning and troubleshooting network components, and the impact on telecommunication networks.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite & Virtual Classroom (1.5 days)
Boot Camp (1 day)
Individual Professionals:
Self-Paced Online
Additional Course Info:
SCTE Recertification Units (2)

INTERESTED IN GETTING CERTIFIED?

SCTE Internet Protocol Engineering Professional (IPEP) is a comprehensive industry certification that covers IP networks.

NEWLY UPDATED Internet Protocol Engineering Professional

The Internet Protocol Engineering Professional (IPEP) certifies the knowledge in the engineering aspects of IP systems as deployed in the telecommunications industry. The scope of this course includes the design, analysis, testing, integration, deployment considerations, and troubleshooting of a variety of IP systems.

COURSE DELIVERY METHODS:
Groups & Technical Teams:
Onsite Classroom (5 days)
Boot Camp (4 days)
Individual Professionals:
Onsite ONLY
Additional Course Info:
SCTE Recertification Units (5)
Recommended Prerequisites:
SCTE Network Specialist (CompTIA Network+) or equivalent
Value:
Prep for SCTE Certification: IPEP

Value

Prep for SCTE Certification: IPEP
Video Courses

Digital video and the technologies that deliver it are essential components of today’s telecommunication systems. Explore today’s video technologies and learn how to encode and transmit them to customers via network architectures.

Multimedia Over Coax Alliance
Multimedia over Coax Alliance, or MoCA, is a technology for the interconnection of home devices over coaxial cable. The MoCA protocol allows cable operators to distribute content over a customer’s home coaxial network by utilizing frequencies outside traditional cable services like video, voice, and data. MoCA may be used to share content from a centralized Digital Video Recorder (DVR), Set-Top Box (STB), or improve Wi-Fi services in the home. Participants will learn how the MoCA technology operates, compare the different versions of the protocol, and recognize RF loss found in MoCA networks. Additionally, the course covers the steps for proper installation and ways to troubleshoot the technology.

**COURSE DELIVERY METHODS:**
- **Groups & Technical Teams:**
  - Onsite Classroom (1.5 days)
  - Boot Camp (1 day)
- **VirtuLearn:**
  - LightningMods, eBooks, NetworkSims & VirtuGame
- **Individual Professionals:**
  - Self-Paced Online

**Additional Course Info:**
SCTE Recertification Units (1)

Internet Protocol Television
The Internet Protocol Television (IPTV) course will begin with reviewing IP fundamentals and the standards associated with IP delivery. Learners will understand the delivery methods used by operators, along with the digital compression techniques used to optimize bandwidth efficiency in the network. The course will describe modern technologies like adaptive bit rate (ABR) and dynamic adaptive streaming over HTTP (DASH). Finally, related skills in IP, structured cabling, and MoCA will be explored.

**COURSE DELIVERY METHODS:**
- **Groups & Technical Teams:**
  - Boot Camp (2 days)
- **Individual Professionals:**
  - Onsite ONLY

**Additional Course Info:**
SCTE Recertification Units (2)

Moving Pictures Expert Group Video
The Moving Pictures Expert Group (MPEG) video course provides a thorough background of MPEG technology and digital video encoding formats. It begins with an introduction to MPEG-2 and moves into an in-depth discussion of MPEG compression, the characteristics and purpose of MPEG-2, MPEG-4 Advanced Video Coding (AVC), and MPEG High Efficiency Video Coding (HEVC) used in 4K. Learners will understand how to troubleshoot the MPEG protocol and identify common video artifacts and their sources.

**COURSE DELIVERY METHODS:**
- **Groups & Technical Teams:**
  - Onsite Classroom (2 days)
  - Boot Camp (1 day)
- **VirtuLearn:**
  - LightningMods, eBooks & VirtuGame
- **Individual Professionals:**
  - Self-Paced Online

**Additional Course Info:**
SCTE Recertification Units (2)
Digital Video Engineering Professional

The Digital Video Engineering Professional (DVEP) course prepares broadband video engineers with the knowledge required in the engineering aspects of digital media (which includes video, audio, interactive services, and associated data) systems as deployed in the telecommunications industry. This course educates participants in the process used to quickly and easily design, analyze, test, integrate, deploy, and troubleshoot a variety of digital media systems from the headend to the customer premises. In addition, participants will discover the importance of the Moving Picture Experts Group (MPEG); testing, monitoring, and fault isolation; and the cause of a variety of different video artifacts.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (5 days)
Boot Camp (4 days)

VirtuLearn:
LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (4)

Recommended Prerequisites:
SCTE Broadband TelecomCenter Specialist (BTCS) or equivalent

Value:
Prep for SCTE Certification: DVEP
Spanish (eBooks & VirtuGame)
Voice Training

Learn all aspects of VoIP over an access network and how to troubleshoot technical problems, as well as deliver service, anytime, anywhere to today’s demanding customers using PacketCable™ 2.0 technologies through IMS and SIP implementation.

Voice over IP Specialist

This onsite course provides a comprehensive study of the key elements of voice over IP, or “VoIP.” The focus of this course is to provide an understanding of how VoIP and the components of VoIP for two-wire equivalent telecommunication telephony services. Key areas covered in the training will be circuit switched voice, Internet Protocol (IP), IP multimedia subsystem, session initiated protocol (SIP), PacketCable, peering and troubleshooting voice networks.

**COURSE DELIVERY METHODS:**

- **Groups & Technical Teams:**
  - Onsite & Virtual Classroom (2 days)
  - Boot Camp (1 day)
- **Individual Professionals:**
  - Self-Paced Online
- **Additional Course Info:**
  - SCTE Recertification Units (2)
- **Value:**
  - Spanish (eBooks & VirtuGame)

Troubleshooting Voice Over Internet Protocol

The Troubleshooting Voice over Internet Protocol (VoIP) course is designed to introduce learners to the practical aspects of troubleshooting IP voice service as delivered over a broadband HFC network at both the IP Layer and the DOCSIS layer. The goal of the troubleshooting VoIP training is to reinforce learner’s existing knowledge of VoIP and develop new knowledge and skills relating to the isolation and resolution of real-world VoIP technical problems.

**COURSE DELIVERY METHODS:**

- **Groups & Technical Teams:**
  - Onsite & Virtual Classroom (2 days)
  - Boot Camp (1 day)
- **Individual Professionals:**
  - Onsite ONLY
- **Additional Course Info:**
  - SCTE Recertification Units (1)
Programming Courses

Programming essentials is critical for the telecommunication engineers and technicians who support an infrastructure for communication and business service. Learn to design, write, debug, and run programs.

Programming Essentials in Python

Python is a general-purpose programming language adopted by the telecommunication industry and used to build just about anything. Python is key for backend web development, data analysis, artificial intelligence and scientific computing, all of which are key for pursuing IT careers.

In the course, you will learn to design, write, debug, and run programs encoded in the Python language using an integrated Sandbox for hands-on. No prior programming knowledge is required! The course begins with the very basics guiding you step by step until you become adept at solving more complex problems.

By the end of this course, the learner will have working knowledge of how computer programs are executed; improve critical thinking and problem-solving skills; and translate real-world issues into computer-solvable problems.

The course prepares learners to become a Python certified professional.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (2 days)
Boot Camp (1 day)

VirtuLearn:
SCTE’s Partner Academy

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (2)

Value:
Prep for Python Institute Certification: PCEP-30-01
Spanish (Yes)
**Additional Developmental Opportunities**

**Project+ by CompTIA**

The Project+ course is designed for business professionals who coordinate or manage small-to-medium-sized projects. It provides foundational project management skills. Project+ covers essential project management concepts beyond the scope of just one methodology or framework. The participant will learn how to manage the project life cycle and ensure appropriate communication. They will learn how to manage resources, stakeholders and maintain project documentation.

**COURSE DELIVERY METHODS:**

*Groups & Technical Teams:*
- Onsite Boot Camp (1 day)

*Individual Professionals:*
- Onsite ONLY

**Additional Course Info:**
- SCTE Recertification Units (1)

**Value:**
- Prep for CompTIA Certification: Project+ PK0-004

**IT Infrastructure Library Foundation**

The IT Infrastructure Library (ITIL) Foundation level is the entry level certification which offers a learner a general awareness of the key elements, concepts, and terminology used in a service management lifecycle, including the links between lifecycle stages, the processes used and their contribution to service management practices.

**COURSE DELIVERY METHODS:**

*Groups & Technical Teams:*
- Onsite, Virtual Classroom & Boot Camp (2 days)

*Individual Professionals:*
- Onsite ONLY

**Additional Course Info:**
- SCTE Recertification Units (2)

**Value:**
- Prep for ITIL Foundation Certification: ITIL 4
Headend/Data Center/Critical Facilities

SCTE headend, hub site and data center courses, along with our headend certification provides the inside plant (ISP) facility knowledge required to maintain a reliable facility, from the equipment that operates in the headend or hub site to the critical facility. Learn how to deploy, manage and troubleshoot today’s services in the headend, hub site and data center.

Broadband TelecomCenter Specialist

The Broadband TelecomCenter Specialist (BTCS) course provides knowledge in maintenance and troubleshooting of the inside plant facilities to ensure minimal system outages, maximum reliability, and standards compliance for optimal operations. This includes knowledge of Building Management Systems (BMS) control and monitoring, grounding practices, backup powering, advanced entertainment, data and voice networks within the headend.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (4 days)
Boot Camp (3 days)

VirtuLearn:
LightningMods, eBooks, NetworkSims & VirtuGame

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (4)
Recommended Prerequisites:
SCTE Broadband Transport Specialist (BTS)

Value:
Prep for SCTE Certification: BTCS
Spanish (eBooks & VirtuGame)

Critical Facilities Bundle

Operators are changing their access networks to keep up with the demand from residential, commercial, and wireless customers. Technologies, like FTTx, and the move to distribute access architecture (DAA) will increase the amount of traffic on the network. These improvements put extreme demands on the operator’s headend requirements for reliability and availability. The role of moving data is a 24/7 operation and operators need to limit potential causes of downtime, which could be caused by hardware failure, network glitches, software problems, and application bugs. The bulk of unplanned downtime 80% is caused by processes or people issues. Operators must audit the processes in place in their facilities and the people they have on-site managing these facilities to improve reliability. Consequently, we now need to incorporate a new mindset and decision-making structure, process, and tools to match unpredictable events such as power outages, natural disasters, or man made incidences. This Class facilitates bridging the gap between a critical incident and the mission-critical of the structure that needs to be in place and working according to detail specifications to manage the event with safety, competence, and situational awareness.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite & Virtual Classroom (5 days)
Boot Camp (4 days)

VirtuLearn:
LightningMods, eBooks & VirtuGame

Individual Professionals:
Self-Paced Online

Additional Course Info:
SCTE Recertification Units (5)
Recommended Prerequisites:
SCTE Broadband TelecomCenter Specialist (BTCS)

Critical Facilities

The purpose of this training is to assist those who are visiting a critical facility or a person that works in critical facilities to better understand the processes. Telecom providers have different kinds of facilities that have changed a lot through the years. Historically, headends were small buildings that mostly contained some switches or routers; typically, they just delivered cable television to just a few customers. A lot of them were acquired through acquisitions of smaller telecommunications companies by larger telecommunications companies, and so the building that they inherit might be very different from the current corporate model. Now, they contain sophisticated IT hardware, they deliver not just cable television, but as you know deliver Internet, voice over Internet, and 911 service (which means there are a lot of governing regulations). They are like mini data centers. Since the telecom industry has grown and consolidated, there is a greater demand on the facilities in terms of the services delivered, as well as the number of...
customers they are serving. This increased demand and growth often means they are outstripping their original infrastructure and they are now suffering in terms of power, cooling, and space.

**Critical Infrastructure**

The Critical Infrastructure course highlights the design process of a critical facility and takes a deep dive into the support systems that keep the facility up and running. It is important to know where to place the critical facility in the network so that service is not impacted by regional codes and hazards from mother nature or human. The choice to build a new facility or use an existing building in the footprint of the operator’s network have different impacts on the design. The different support systems from powering, HVAC, cabling, and fire protection shape the design of the critical facility. The critical infrastructure course will give you a foundation of how to make changes to the design so that all pieces fit together.

**Critical Facilities Heating Ventilation Air Conditioning**

The Critical Facilities Heating Ventilation Air Conditioning (HVAC) course provides advanced knowledge of air-conditioning systems and methods used in the cable TV access network. Regional and international standards for HVAC systems will be explored along with air circulation, greener technologies, and auditing of current systems in place in the operator’s footprint. Participants will gain the skills to successfully audit, retrofit, upgrade, and administer policies regarding HVAC systems used in their footprint.

**Critical Facilities Powering**

The Critical Facilities Powering course explores commercial power and how a UPS is needed for the longevity of your electronics. In the powering module, you will learn the calculations needed to measure how much energy the electronics use. Backup systems for the commercial power are important for critical facilities as well. Keeping the facility safe from power surges by proper bonding and grounding procedures are discussed in the powering course. The powering course also details the importance of maintenance and safety around powering inside the critical facility.

**Greener Facility**

The Greener Facility course highlights the many ways an operator can run a greener facility. Where the facility is placed inside the network has a big impact on its carbon footprints. The materials used to construct the facility also play a role on carbon dioxide production. The biggest improvement in carbon footprint an operator can do for the facility is make the power consumption more efficient. The use of renewable energy sources and more efficient HVAC systems are ways an operator can achieve the goal of a greener facility.
Leadership Training Package

SCTE prepares technical pros to advance their careers and helps organizations implement technology solutions by training new field operations supervisors and trainers. Look to the future and develop yourself with SCTE training.

Train the Trainer

This unique course teaches telecommunications industry supervisors, lead technicians, and trainers how to better facilitate learning in a work or classroom environment. It focuses on developing attendees’ teaching skills, with multiple opportunities for practice and feedback. Train the Trainer participants discover the most effective methods for adult instruction and how to help students apply new knowledge. It features materials from SCTE’s training programs.

COURSE DELIVERY METHODS:

Groups & Technical Teams:
Onsite Classroom (3 days)

Additional Course Info:
SCTE Recertification Units (3)

Individual Professionals:
Onsite ONLY
We Strengthen Your Organization by Developing Leaders.

Through partnerships with highly-regarded institutions and organizations, the Leadership Institute’s programs are designed to enhance the careers of current and future leaders by leveraging the best and brightest minds, and educators both within and outside of the telecommunications industry.

ASK YOUR SUPERVISOR IF YOU QUALIFY FOR SCTE LEADERSHIP INSTITUTE PROGRAMS TODAY.

Learn more about the Leadership Institute programs, or the discounts your organization may receive as a Corporate Alliance Partner—visit scte.org/institute or contact SCTE.

JOANN PUSHCAROVICH
jpushcarovich@scte.org
800.542.5040, ext. 7325

The SCTE–Tuck Executive Leadership Program

The SCTE–Tuck Executive Leadership Program ensures that current and future telecommunication technology and operations executives have the business and leadership skills they need to create and execute strategies that impact their organizations.

Designed in conjunction with the telecommunication industry’s foremost thought leaders, the program leverages the resources of the world-renowned Tuck School of Business to help attendees understand how to anticipate and manage changes that are ahead for the industry. This intensive program optimizes the communication skills needed to effectively execute on strategy and to successfully lead peers in the delivery of networks and associated services. The program also provides:

- Communication strategies that can take strategic visions from concept to reality
- Leadership skills for influencing, managing and getting optimal results from organizations
- Business and operations skills that can optimize resources for maximum efficiency and return on investment
- Critical thinking necessary for achieving and maintaining technical and business leadership in today’s competitive market

The SCTE–Georgia Tech Management Development Program

Designed in conjunction with the faculty at the nationally ranked Georgia Tech Scheller College of Business, this program provides the foundation for high-potential individuals to grow into management positions related to technical and operational aspects of the telecommunications industry. The immersive curriculum will include a broad mix of classes that have a particular emphasis on the practical needs of telecommunication professionals, and may include topics such as:

- Developing a Technology Strategic Plan
- Analyzing Financial Statements
- Managing Technology Projects
- Leading and Managing High Performing Teams
- Understanding Outsourcing Arrangements
- Telecommunication Industry Technology and Business Trends
- Making Technology Decisions Based on Total Cost of Ownership
- Radio Frequency Network Management
- Managing Change in Technology Implementations

SCTE-Cornell University Agile Leadership Program

October 18-21, 2021

In this era of explosive industry growth and rapid evolution, the pace of change on the inside of your company has to match the pace of change on the outside. Agile leadership is a methodology to accelerate projects and manage for outcomes instead of output. This program will give you the mindset and tools you need to empower teams for rapid innovation, iteration, and learning as your organization strives for continuous improvement. Content addresses both the technical and the human side of change management.

SYSTEMS ARCHITECTURE & MANAGEMENT CERTIFICATE PROGRAM

Studying the theory and practice of systems architecture examines a range of disciplines: Systems Engineering, Decision Analysis, Stakeholder Analysis, Formal Design Theory, Simulation, Global Optimization, Design of Experiments, Data Mining and Visualization, and Project Management. The application of these concepts to business projects will quickly advance the development and implementation time and ROI, making a significant difference in bringing 10G to market. Limited to 20 participants, this highly interactive learning program will prepare individuals to lead complex systems architecture projects within their companies.
GET MORE

SCTE® members receive a full range of benefits as part of their membership, and all SCTE partner certifications are offered at significant discounts. Take advantage of the full spectrum of SCTE resources, join or renew your membership at scte.org/join.

Strengthen your organization and grow your business by becoming a Corporate Alliance Partner (CAP). Learn about our MSO, Technology and Contractor CAP partner programs at scte.org/cap.

Learn more about courses and register at scte.org/courses.

Learn more about certification and register at scte.org/certification.

As a subsidiary of CableLabs®, cable operators can join CableLabs and as an affiliate, employees can have unlimited access to SCTE courses, certifications, become a corporate member of SCTE Standards with unlimited committee participation by employees, and full access to SCTE Cable-Tec Expo®. Learn more about CableLabs membership at cablelabs.com/become-a-member.