

# Broadband Digital Installer

## OVERVIEW

Broadband Digital Installer introduces the basics of digital video, high-speed Internet access and telephony services. Presented are typical connection schemes and functions of home theater components, typical features and functions of cable modems, and the basics and installation procedures for telephony services. The electronics intended for entertainment in the customer's home has changed significantly over the past few years. This course will dissect connection options and operating parameters of electronics such as TV sets, set-top boxes, DVR's, DVD's and audio/video receivers. Students will also learn what is involved in certifying the reliability of the drop for high-speed data service and how to perform the extensive step-by-step installation procedures. Detailed lessons cover both the basics of and installation procedures for constant bit rate and Voice over Internet protocol (VoIP) telephony equipment. Lastly, the course teaches students about communication service competitors.

### ***Delivery Options:***

📖 Learning takes place using a textbook. Lesson and final exams are taken online.

### ***Completion Time:***

Varies based on the student's self-study pace, however, the maximum time allowed is six months from enrollment.

## BENEFITS

Upon completion students will:

- » effectively answer customer questions regarding competitive technologies offering similar digital video services, high-speed data services and voice services
- » reduce repeat service calls and improve customer satisfaction
- » use this course to help prepare for SCTE's Broadband Premises Specialist certification and video, data and voice endorsement
- » earn three hours of college credit
- » receive an industry recognized Jones/NCTI™ certificate of graduation
- » gain 12 BICSI continuing education credits for RCDD, RCDD/LAN, RCDD/OSP, Residential Installer, Installer Level 2 and Technician

### ***Ideal for:***

Personnel who need to learn about installing digital video, high-speed Internet access services and telephony, including:

- » installers and technicians
- » advanced services installers and technicians
- » high-speed data installers and technicians
- » telephone installers and technicians

## RELATED COURSES

***Students completing this course should then enroll in:***

- » Installer Technician
- » Computers and Broadband Modems
- » Understanding Voice and Data Networks
- » Troubleshooting Advanced Services

## TRAINING FEATURES

- » Knowledge-based, broadband and job-specific content
- » Highly illustrated and easy to read course materials
- » Curriculum advising
- » 24/7 lesson feedback and progress monitoring at [www.jonesncti.com](http://www.jonesncti.com)
- » Online testing

Visit [www.jonesncti.com/coursepolicy.htm](http://www.jonesncti.com/coursepolicy.htm) for important information on computer hardware/software requirements and student-to-student transfer and extension limitations



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## COURSE OBJECTIVES

Upon completing this course, students will be able to:

1. understand the order of preference when making connections
2. recognize how digital rights management can influence the digital connection
3. recognize the advantages of connecting audio hardware components using digital interfaces
4. connect any equipment by understanding signal flow
5. identify six key television settings that may need to be configured
6. list examples of setup options that need to be coordinated between interconnected devices
7. identify some solutions to overcoming remote control IR line-of-site limitations
8. compare Internet access options
9. understand the basics of cable modems
10. correctly and safely install high-speed broadband Internet access service
11. instruct the customer how to most effectively use the newly installed high-speed broadband Internet access service
12. understand Internet basics
13. understand the basics of constant bit rate telephony equipment and services
14. distinguish between traditional telephony services provided by circuit switched technology and VoIP technology
15. list three ways that a cable operator can offer VoIP service
16. name the major hardware in a PacketCable-compliant VoIP network
17. install an indoor/outdoor EMTA to provide VoIP service
18. outline the Telecommunications Act of 1996
19. describe how competing technologies provide the same services to customers

## COURSE OUTLINE

- 1. Connecting Consumer Electronics**  
Making video connections, making audio connections and connecting consumer electronics equipment
- 2. Operating Consumer Electronics**  
Identifying video device source selections, understanding menu features exploring video viewing options and analyzing remote controls
- 3. Connecting to the Internet**  
Presenting broadband modems, preparing to install a cable modem and activating cable modem service
- 4. Instructing Cable Modem Customers**  
Highlighting available printed material, explaining computer and cable modem settings and features and facilitating customer practice and software usage
- 5. Introducing the Internet**  
Exploring the Internet's origins, understanding how the Internet works and using the Internet
- 6. Introducing Constant Bit Rate Telephony Service**  
Describing NIU functions, describing NIU access areas, describing NIU powering methods, describing NIU provisioning, describing NIU specifications and describing NIU alarms
- 7. Installing Constant Bit Rate Telephony Service**  
Identifying NIU installation equipment and tools, mounting the NIU, connecting power, connecting customer services and testing NIU operations
- 8. Introducing VoIP**  
Exploring the world of VoIP, understanding cable telephony's evolution from CBR to VoIP and understanding how the telephone and VoIP work together
- 9. Installing VoIP**  
Exploring VoIP pre-installation issues, installing the outdoor EMTA and installing the indoor EMTA
- 10. Understanding Competitive Services**  
Summarizing the competitive background, examining communications competition today and discovering future competitive services



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