Telecom Training & Safety Course Summaries
October 2011

SOFTWARE

Access 2007

For employees interested in learning *Access 2007* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.

Access 2010

For employees interested in learning *Access 2010* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.

Excel 2007

For employees interested in learning *Excel 2007* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.

Excel 2007 Advanced

For employees interested in learning *Excel 2007 Advanced* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.

Excel 2010

For employees interested in learning *Excel 2010* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.

Excel 2010 Advanced

For employees interested in learning *Excel 2010 Advanced* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.

Outlook 2007

For employees interested in learning *Outlook 2007* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.

Outlook 2010

For employees interested in learning *Outlook 2010* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.

PowerPoint 2007

For employees interested in learning *PowerPoint 2007* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.

Powerpoint 2010

For employees interested in learning *PowerPoint 2010* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.

Publisher 2010	For employees interested in learning *Publisher 2010* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.
Visio 2007	The Visio 2007 training course will help you master the program and use professional-looking diagrams to enhance any report that comes your way. Learn the ins and outs to mastering the design program that makes it easy to visualize, explore, and communicate complex information. Visio 2007 computer based training videos allow you to skip sections, go back to ones you already learned and take your time absorbing all the information. Short instructional videos followed by labs and quizzes.
Word 2007	For employees interested in learning *Word 2007* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.
Word 2010	For employees interested in learning *Word 2010* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.
Word 2007 Advanced	For employees interested in learning *Word 2007 Advanced* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.
Word 2010 Advanced	For employees interested in learning *Word 2010 Advanced* program knowledge and skills. Interactive course material allows you to learn keystrokes and mouse clicks required to accomplish tasks in the application, as well as terminology used in the software and techniques used to increase productivity.

TECHNICAL- Topic Specific

10Base-T Ethernet LANs	Provides students with a complete understanding of the operation of the 10Base-T LAN protocol and cabling requirements for commercial or residential buildings. Describes the 10Base-T Ethernet technology, 10Base-T LAN components, 10Base-T network cabling requirements and the specifics on how to design a 10Base-T Ethernet LAN.
100Base-T Ethernet LANs	Builds understanding of 100 Base-T LANs and their cabling systems. Describes the 100Base-T Ethernet technology, the different physical layers supported by the 100Base-T standard, 100Base-T LAN components, 100Base-T network cabling requirements and the

specifics on how to design a 100Base-T Ethernet LAN. *100Base-T Ethernet LANs* provides a complete understanding of 100 Mb/s Ethernet network technology and cabling systems with pictures, graphics and instructor audio.

ATM Basics This course provides employees with the basic layout and operation of ATM. For technicians, a basic knowledge of ATM is necessary for troubleshooting. For other employees, including technicians and management, ATM features, limits, and operation helps with any fact of the telecommunications industry where personal discussion is needed to make decisions and relate to customer needs.

ATM Fundamentals Designed to help establish a structured and logical approach to troubleshooting and managing today's ATM networks. Teaches the fundamentals of Asynchronous Transfer Mode. Learn ATM address structuring system performance and traffic management. You will be given the information needed to evaluate how ATM can become part of your network.

ATM Troubleshooting ATM Troubleshooting is Part 3 of a three part series. Designed to help establish a structured and logical approach to troubleshooting and managing today's ATM networks. Presents methodical troubleshooting techniques to help ATM network managers reduce maintenance time and associated costs of repair and downtime.

ATM Concepts & Technologies

Designed to help you learn how ATM works within existing and next generation networks. This introductory ATM course provides the concepts, principles and terminology to prepare you for more in-depth courses or provides background knowledge of ATM.

ATM Structure & Tools of Tech.

Designed to help you learn how ATM works within existing and next generation networks. Teaches ATM structure, overview and functions of NICs, switches, network interface, traffic management and network concepts and tools.

ATM Transmission Designed to help you learn how ATM works within existing and next generation networks. Teaches PVCs, SVCs, upper layer preparation and error checking

ATM LAN Emulation Designed to help you learn how ATM works within existing and next generation networks. Teaches address resolution, encapsulation, server and client functions, and MPOA

ATM Network Migration Designed to help you learn how ATM works within existing and next generation networks. Teaches how to effectively migrate ATM within the network, ATM in the LAN, LAN backbone, and WAN

Broadband Network Calculations

The student workbook and two videotapes are designed to help students understand and apply math in their everyday work duties. Training covers ratios, powers of ten, scientific notation, decibels, decibel-millivolts, network powering, power supply components and power supply calculations and is coordinated between the text and the videotapes.

Broadband Services, Foundation

A textbook/workbook intended to provide conceptual knowledge and training in testing, troubleshooting, as well as communication skills, professionalism and safety practices.

Cable Fault Locating	This is a first course for apprentices and new employees who need preparation in the techniques of troubleshooting, locating cable problems, and understanding common conditions causing problems on a cable pair. The course does not cover detailed TDR testing and fiber optic cable troubleshooting.
Cable, Inside and Out	This first-course is for employees who have cable maintenance duties or for those who are simply interested in the basics of telephone cable technology.
Cable Television	This comprehensive guide to CATV technology examines the equipment, systems and methodology of broadband telecommunications, as well as many other facets of the workings of cable TV. Includes construction, coaxial and optical cable, microwave, subscriber terminal equipment, noise, distortion, system operation and maintenance, frequency response and equalization, rural, urban and two-way system design. Used in conjunction with videotapes this course is designed to advance an employee from entry-level to fully trained broadband technician.
Cable TV, Intro	This course is intended to serve as an introduction to CATV, allowing the student to gain an overall appreciation and understanding of its structure and the industry.
Category 5 Cabling Series	Provides understanding of how to correctly install, terminate and test category 5e cabling systems according to the TIA/EIA-568-A and ANSI/TIA/EIA-568-B cabling standards in both commercial and residential buildings. Describes the specific details for the installation, termination and testing of high performance category 5e cabling systems. Provides step by step instructions for terminating and testing category 5e cable with pictures and graphics.
Category 6 & 7 Cabling Systems	Defines the new category 6 and category 7 cabling specifications and provides a comparison to existing category 5 and category 5e cabling. Shows students how to correctly install, terminate and test category 6 and category 7 cabling systems according to the ANSI/TIA/EIA-568-B and ISO/IEC 11801 cabling standards in both commercial and residential buildings. Describes the specifics of the installation, termination and testing of high performance category 6 and category 7 cabling systems. Provides step by step instructions for terminating and testing category 6 UTP cables with pictures and graphics
CCS – Common Channel Signaling	Provide instruction in the Common Channel Signaling (CCS) architecture that allows universal connectivity with other networks and systems worldwide. The course emphasizes the requirements for call setup in today's network and networks of the future.
CCS – Signaling System 7	Provide instruction in the protocol used for communication over the Common Channel Signaling (CCS) network. This protocol allows universal connectivity with other networks and systems worldwide.
CCS - Intelligent Network & AIN	Designed to explain the protocol layers and operational modes of services that use Common Channel Signaling (CCS), Intelligent Network, and the Advanced Intelligent Network.
CO Power Overview	Offers basic insight into the operation and relationship of various power components found in a telecommunications building. AC and DC systems, their components and uses are discussed. Video lecture format with graphics
Digital Basics for Cable Television Systems	Introduces the fundamentals of digital technology and system integration as they relate to

	the delivery of digital video over cable and optical fiber systems. How to make realistic measurements on digital systems and recognize the symptoms of trouble caused by digital signals in an analog environment. Making the transition to digital TV.
Digital Signal Transmission Fundamentals	Explores basic digital concepts and explains how digital technology provides efficiencies in transmitting and carrying information. Provides a foundation of knowledge and understanding of current and future telecommunications technologies for public and private networks. Includes: How an analog signal is converted to a digital signal; how Time Division Multiplexing (TDM) combines 24 digital channels onto a digital signal; Levels and capacities of the North American digital hierarchy.
DS-1 Operating & Testing	Teaches the concepts of high-capacity digital services operating at the Digital Signal Level 1 (DS1) rate of 1.544 Mbps. The course covers signal characteristics, the elements that create and transport the DS1 signal, and the testing of DS1 services.
DS-3 Operating & Testing	Provides a comprehensive overview of DS3 facilities and services, as well as testing procedures that support them. Includes: DS3 applications, signal formats, and network elements to support and transport DS3. Proper test procedures for provisioning and maintaining DS3 circuits.
Fiber Optic Cabling Series	Introduction to Fiber Optic Cabling Systems is a training course that will define fiber optic signaling and fiber optic cabling components.
Fiber Optic Fundamentals	Provides a thorough overview of fiber optic technology, the benefits of the technology and key breakthroughs. Discusses fiber fundamentals, including light guiding, signal transmission and optical fiber defects. Reviews the components of fiber optic systems, including terminals, cables, optical fiber types, splicing light sources and optical detectors. Describes fiber applications for business and the home. Provides opportunity to manipulate fiber optic networks in simulated exercises.
Fiber Optic Installation	Provide a guide to fiber optic installation that includes all the information, principles and procedures an installer needs to complete any fiber optic installation successfully. The course includes cookbook-like installation instructions, and troubleshooting guides for each set of installation instructions. Both the novice and experienced installer will learn principles and methods of installation.
Fiber Optics, Understanding	A general course for technicians that covers most aspects of fiber-optics and their uses in networks. The author says: "Think of it a Fiber Optics 101, a foundation for your understanding of a growing technology. When you finish this book you should indeed *understand* fiber optics" It explains the principles and demonstrates how and why fiber optic systems operate. Emphasizes the use of fiber optics in telephony and other industries; present and future applications.
Frame Relay Networks	Teaches the fundamentals of Frame Relay networks: Backbone architectures, packet switched services, frame structures and Frame relay services.
Fundamentals of Datacom & Networking 3 – WANs & LANs – Frames and Packets – Equipment, Services and "Cloud"	Begins by establishing a model for a data communications circuit, then provides examples and context for each of the components of the model, and review different circuit configurations including LANs and WANs. Look at how data is formatted for transmission, then cover the newer ideas of frames and packets, how frames and packets are related, and the addresses on frames and packets, and the structure of IPv4 packets. This set of topics, particularly the understanding of packets and frames, the addresses on each, and how they are related; and the idea that there are three kinds of network services -

and three kinds of edge equipment - is the foundation for all further study of LANs, WANs, IP and just about any other kind of communications, including Voice over IP.

Fundamentals of Telecommunications 1 – Telephony & the PSTN – Telecom Equipment – The Telecom Industry

The topics in this video course provide the essential foundation on which everything else, including digital communications, data circuits and networking are built. It starts with the Public Switched Telephone Network (PSTN) and fundamentals that are key to understanding of newer technologies and services. Take a practical journey through different types of equipment including switches, PBXs, Centrex, multiplexers and routers, as well as ancillary equipment. View the telecommunications industry and understand the main players and competitors, how Local Exchange Carriers connect to Inter-Exchange Carriers and how CLECs fit into the picture.

Fundamentals of Telecommunications 2- Analog and Digital – DS0-DS3 – TDM - T1-T3-ISDN-Sonet-Fiber – DWDM

Most of the transmission systems we have in place were designed for digital voice communications ... but they are also used for data and networking. This video course provides you with the concrete knowledge of the telecommunication circuits necessary to a full understanding of data circuits and network services. Understand the concepts, standards and technologies for actually transmitting voice calls from one place to another, what "digital" actually means, and how it is implemented. We'll take a practical tour of digital circuits, including T1, T3, and SONET. Without getting bogged down on technical details, we'll provide you with a basic understanding of how transmission systems work

Gigabit Cabling Systems

Describes the cabling requirements for Gigabit Ethernet LANs and defines the IEEE 802.3z and 802.3ab physical layer standards for Gigabit Ethernet. It will also describe the different signaling schemes used for each physical layer. Provides an in-depth description of how both copper and optical fiber cable plants are affected by gigabit signals. Describes the differences between category 5, category 5e and category 6 UTP cables. Also describes the significant distance limitations for multimode optical fiber cables used for Gigabit Ethernet LANs.

Gigabit Ethernet LANs

Describes the ultra high speed networking technology, cabling requirements and design parameters for Gigabit Ethernet LANs. Defines standards, components and design parameters. Provides an in-depth description of operation and defines the differences between LAN operating speeds. Also describes how Gigabit Ethernet LANs operate in half duplex, half duplex packet bursting, switched and full duplex modes.

ISDN

The purpose of this course is to provide an individual with a general knowledge relating to Integrated Services Digital Network (ISDN) and how the use of ISDN can provide many different digital services for home and business with almost any current or future data protocols.

LAN Basic - (Book)

Provides a comprehensive introduction to the basics of networks to help communications professionals understand the basic structure and terminology of networked systems. The text allows the reader to grasp the structure, design protocols and other aspects of networked systems driving this important merger of communications and computer technologies.

LAN Basics - (CBT)

Introduces the basics of Local Area Networks (LANs), providing a comprehensive overview of LAN components, transmission media transmission techniques and protocols. The course includes up-to-date information on high-speed LAN technologies such as 100BASE-T. Provides information on linking LANs including switched Ethernet, Token-

Ring and ATM.

Networking Basics In clear and concise language, this course covers all the network fundamentals needed for an introductory course. Topics include models and standards, architectures, topologies, protocols, management and security issues, and more. Whether you're already working in the computer networking field and looking to expand your skills or setting out on a new career path, *Networking Basics* will help you get there. Easy-to-read, practical, and up-to-date, this course not only helps you learn the fundamentals of networking at your own pace; it helps you master the core competencies and skills needed to succeed.

Networking, Understanding 1 Protocol Stacks · OSI Layers · IP Addressing · Frame Relay · ATM · TCP/IP over MPLS Builds on the basic packet, frame and IP networking concepts of *Fundamentals of Datacom and Networking*, to put in place a solid understanding of protocol stacks, the OSI model and layers and IP addressing including address classes, static vs. dynamic public vs. private and network address translation. Provides the next higher level of knowledge, understanding packet networks and bandwidth on demand services from telecommunication service providers. After the core concepts, including virtual circuits, explains jargon: connection-oriented vs. connectionless and reliable vs. unreliable packet networks. Then we progress through technologies: Frame Relay, ATM and finish with MPLS. We'll trace the flow of TCP and IP packets from server to client across Frame Relay, then see how the same TCP/IP works over MPLS.

Networking, Understanding 2 The Internet · ISPs · The Web · IP Security · Viruses · Firewalls · Encryption · IPsec · VPNs Covers the Internet and IP Security. Provides understanding of the Internet and its fundamental principles of operation. Looks at some details and improvements such as the Domain Name System, MIME, HTML and HTTP which form "the Web". Discusses how you connect to the Web from a residence and from an enterprise or organization. Gives an overview of security in the IP world. Begins with a discussion of risk areas, vulnerabilities and measures. Provides a real understanding of what the Internet is how it functions and current issues, plus practical knowledge of computer security.

Passive Optical Networks (FTTx)

Provide a thorough overview of PON technology and fiber-to-the-premises optical systems. Discusses and shows the standards, terminology, equipment, operating principles and developments leading to today's networks. Includes simulated exercises on planning and operating fiber optic networks.

Public Network Basics This short course provides a primer for the telecommunications industry. The text will familiarize you with the terms and systems in use today as well as providing some background. Subjects are presented in a condensed format to provide the reader with the most useable information about each topic. A good course for anyone who needs to understand telephony and talk-the-talk of the industry.

SONET Basics The purpose of this course is to provide an individual with a general knowledge relating to Synchronous Optical Network (SONET) standards and how the use of SONET in new fiber equipment can improve the transmission of information in digital form.

SONET Overview Explains the major characteristics of the SONET signal format, network elements, advantages, applications of synchronous optical transmission, and operations benefits offered by SONET. The Synchronous Optical Network (SONET) and the effect it has on telecommunications services.

SS7 Basics This course is intended to serve as an introduction to SS7, allowing the student to gain

overall appreciation and understanding of its structure and impact. This course covers the reasons why SS7 exists and is necessary, as well as, step-by-step procedures describing actions that occur in the network when SS7 is being used.

Structured Cabling Sys Intro A comprehensive training course that shows, with pictures and graphics, the different subsystems, components, cables and distances of a structured cabling system. Describes how the components of UTP, STP and Fiber Optic cabling are be used to build computer network cabling system in commercial and multi-tenant residential buildings. Describes all of the required EIA/TIA cabling standards. A first course in cabling for basic knowledge.

Switched & Full Duplex Ethernet LANs Defines both switched and full duplex Ethernet LAN operation. Describes LAN switching in detail and defines the standards that apply to both LAN switching and full duplex Ethernet LAN operations. Describes the components used as well as the operation, cabling requirements and design specifications for both switched and full duplex Ethernet LANs

T1 Transmissions The purpose of this course is an overview of T1 transmission, Pulse-Code-Modulation (PCM) and Superframe for non-technical employees and as a refresher for those who repair or install T1/PCM equipment.

TCP/IP Vol 1 Fundamentals Designed to teach users the critical foundational aspects of communication systems. Topics covered will include an overview of TCP/IP, wide area point-to-point protocols, LAN technologies, packet networks, and IP addressing. May be used as the first course in a set of four that includes *Troubleshooting, IP Addressing & Subnetting and IPv6*

TCP/IP Vol 2 Troubleshooting

Designed to teach users critical foundational aspects of Internet communication. Troubleshooting preliminaries and tools, Using troubleshooting tools in the network, Packet Internet Groper (PING), TRACEROUTE, NSLOOKUP, NETSTAT Internet, Control Message Protocol ICMP) IP Specific Troubleshooting, Network Monitoring, Network Analysis

TCP/IP Vol 3 IP Addressing & Subnetting

Designed to teach users critical foundational aspects of Internet communication. History of TCP/IP, Network Node Addressing, Subnet Masks, Inadequate Address Space, Concepts of IP Addressing & Subnet Masks, End-device uses IP Addressing, Router uses of IP Addresses, Conventional Subnetting Techniques, Supernetting, Private Addressing, Address Translators, Migrating an Existing Scheme, Classless IP Routing Protocols

TCP/IP Vol 4 IP Version 6 Designed to teach users critical foundational aspects of Internet communication. New addressing format, How it works, Use addressing shortcuts and shorthand notation, Methods of dynamically addressing, Conversion between IP v4 and IP v6, Understand next generation routing concepts, Implement ways to Route IP Version 4 traffic under IP Version 6, How, when, and what equipment is required to migrate to version 6

Telcom Fundamentals Network Overview Designed to teach users the structure of telecommunication systems for voice, data and video networks, their component functions, and the various services available. An introductory course in a series.

Telcom Fundamentals Voice Network Overview	Designed to teach users the structure of telecommunication systems for voice, starting with what goes on behind the scenes from dial tone until a response is heard. Covers additional services provided through the voice network and explains the differences between private networks and the Public Switched Telephone Network. The second course in a series
Telcom Fundamentals Data Network Overview	Designed to teach users the structure of telecommunication systems for data, a look at the differences among various types of data networks – public, private, CATV and satellite networks. Requirements to deliver circuit-switched vs. packet-switched services. How data and information travels over the networks and delivers such services as ATM and DSL. The third course in a series
Telcom Fundamentals Transport Overview	Designed to teach users the structure of telecommunication transport systems. How information is sent over a communications network. Discusses signal quality, signal type, bandwidth and multiplexing. Fourth in a series
Telcom Fundamentals Internet/Intranet Overview	Designed to teach users the Internet and intranet fundamentals. Introduces the services available to Internet users and what happens behind the scenes when a URL is entered into a browser and a web page is displayed. Fifth in a series
Telcom Fundamentals Wireless Network Overview	Employees requiring knowledge of telecommunications principles and services. Individuals responsible for sales, sales technical support, marketing, network implementation, technical support, information technology and network provisioning.
Vol. 1 Voice Transmission	Designed to teach users the structure of telecommunication systems for voice and data transmission, their component functions, and the various services available.
Vol. 2 Data Transmission	Designed to teach users the structure of telecommunications systems for voice and data transmissions, their component functions, and the various services available.
Vol. 3 VoIP	Designed to teach users the structure of telecommunication systems for voice and data transmission, their component functions, and the various services available.
Vol 4 DSL	Designed to explain what Digital Subscriber Line (DSL) is and how to implement xDSL solutions to meet telecommuting, branch office, campus or intra-building networking needs.
Telecom Technologies	This course is provides a view of history, an overview of telephone fundamental operating principles/systems and how they work. Starts from the invention of the telephone and telegraph and brings the student up to digital switching in a clear, mostly non-technical narrative. Intended for non-technical employees and as an introduction to those entering technical occupations. May serve as a review of the overall picture for technicians.
Telecommunications, Anatomy	The first-course is for employees interested in the basics and make-up of the telephone industry.

Testing & Troubleshooting

UTP Cabling Systems Describes how to correctly test and troubleshoot UTP cabling systems. Provides an overview of the different types of tests for UTP cabling systems.

VoIP, UnderstandingComponents · Standards · Architectures

Provides a big-picture view of a VoIP system, identifying and explaining key VoIP components, jargon and buzzwords, plus the main standards and protocols. Reviews the many flavors of VoIP, comparing the various implementation and architecture choices. Progressing through Internet telephony, Managed IP Telephony, PBX replacement with distributed call manager systems and IP Centrex / Hosted PBX, you'll gain the knowledge to confidently differentiate VoIP architectures and discuss pros and cons of options.

VoIP, Understanding Voice Packetization · Voice Quality · Codecs, Jitter and Packet Loss · QoS

Drills into VoIP technology, enough to understand fundamentals, fill the gaps and explain jargon and mainstream practices without bogging down on details. You'll understand what exactly packetized voice is, how it happens and the standards and protocols used. You'll learn about codecs and compression, and understand factors like delay, jitter and packet loss and how they affect sound quality. Examines carriers' IP network technologies, Service Level Agreements and the use of MPLS to implement Differentiated Services for Quality of Service (QoS).

VoIP, Understanding SIP · IP Call Flow · Carrier Interconnect

Understand what SIP is, how it works, demystify jargon like proxy server and location server, understand how SIP fits in with softswitches and call managers, and trace the establishment of an IP phone call step by step. Covers connecting to carriers using traditional DS0 PBX trunks and PRIs, how Megaco fits in to the story, plus IP interconnect, co-existence with legacy systems, integrated messaging and more.

Wireless Basics This course provides a broad knowledge about wireless services. It shows the relationship between radio and wireless in a non-technical manner and, historically, covers wireless from the 1980's "rich person's toy" to regulatory reforms of the 90's. It's essential knowledge for those selling and installing wireless services in today's telecommunications industry.

Wireless IP – Vol. 1 Provide a background in wireless telecommunications, including convergence of analog and digital systems, wireless signaling, air interface systems, the evolution of wireless generations and an analysis of the future of wireless communications and applications.

Wireless IP – Vol. 2

Local Loop & LANs Examines how the different types of wireless local loops are constructed and the obstacles to effectively deploying this technology. Provides a detailed look at the components of a wireless LAN including IR and RF (including Bluetooth) that are critical to implementing a reliable wireless LAN.

Wireless IP – Vol. 3 3G

Candidate, RTTs & MANET Examines the different standards that will govern the next generation of wireless infrastructure, such as TDMA RTTs, CDMA RTTs, and Proprietary RTT candidates.

Wireless IP – Vol. 4 Mobile

IP Design & Operation Examines the functionality, design, and operational considerations of Mobile IP. The course includes: network management, tunneling, mobile routers, QoS, testing, design issues, Cellular IP functions and the routing concepts behind Cellular IP.

Wireless IP – Vol. 5

Mobile IP Applications Learn mobile environment applications elements and uses. The course includes: dual access web servers, wireless VoIP, video over IP, Internet enabled vehicles, Smart houses/offices, and emerging applications.

Wireless, Understanding Begins with basic radio concepts, understanding "analog radio" and "digital radio", and then covers fundamentals of mobile communication networks: base stations, cells, handoffs and mobility. Goes through the first and second generation technologies: AMPS, TDMA, GSM and CDMA, and understand how each works, their strengths and weaknesses and how they relate to each other. Part 3 concentrates on data over cellular and 3G, and cover the differences between GPRS, Wideband CDMA or UMTS, cdma2000, 1X, 3X and 1XEV-DO. Concludes with applications such as i-mode, SMS, wireless email, web surfing, WAP and XML.

TECHNICAL-Air Conditioning

Air Conditioning & Refrigeration

The course is designed to assist maintenance people who would benefit by understanding the principles of operation and troubleshooting for mechanical systems of air conditioning units. Not an electronics/ telecommunications course but rather an air conditioning/refrigeration "how-it-works" course.

Electricity & Air Conditioning

The course is designed to assist maintenance people who would benefit by understanding the principles of operation and troubleshooting of air conditioning systems electrical circuits. Not an electronics/ telecommunications course but rather an air conditioning/refrigeration "how-it-works" course.

TECHNICAL-Electronics

Electricity, Practical The course is designed to assist maintenance people wanting to safely troubleshoot and perform repairs to electrical devices. Not an electronics/ telecommunications course but rather electricity, electrical, devices and safe troubleshooting and repair of common electrical circuits and problems. A "how-it-works" course. Beginner level advancing to intermediate level electricity.

Electronics, DC & AC To provide a course in the basic theory of DC and/or AC electronics. It provides information necessary for continued learning in the electronics area. This course **also** provides foundation learning necessary for more advanced electronic theory.

SAFETY

Defensive Driving To provide training of knowledge and skills in defensive driving techniques. To prevent or reduce motor vehicle accidents or their severity among all employees both on and off the job.

First Aid - New Standard & CPR To provide a course of instruction in basic techniques of administering first aid to victims at the scene of an accident or sudden illness.

Operating Techniques Tractor-Loader-Backhoe

Instructs an operator on professional techniques for operating tractor-loader-backhoe equipment. Begins with the basics and progresses to the more technical aspects and difficult job situations. Heavily illustrated to demonstrate procedures.

CUSTOMER SERVICE

Better Business Writing	The course provides the basics of effective business writing. Learn key techniques to improve writing skills and how to express yourself more clearly. Shows how to recognize problems and correct them, how to avoid redundancies and how to write for special or sensitive circumstances.
Building & Closing the Sale	Learn how to build rapport and trust, ask open-ended and probing questions to uncover your customers motivations and ask for the business. Learn techniques to build rapport with your prospects and guide them to a successful close. Address questions and objections with confidence. Strike the right balance between listening and speaking.
Calming Upset Customers	The course provides ideas and skills that have been useful to people in building customer loyalty and strong customer relations. It also presents strategies for successful customer encounters, advises managers about actions and attitudes, and suggests procedures to take after the customer is gone. You will learn how listening, nonverbal communication, feedback, and management all help to deal with an unhappy customer, and turn the situation into a positive one.
Customers Satisfaction	The course explains why satisfying customers, the people part of your job, is as important as doing the technical part. It also presents strategies and shows how to use the tools of customer satisfaction as well as providing techniques for overcoming barriers to customer satisfaction
Influencing the Interaction	This course indentifies six practices which will service providers offer a more positive experience for their customers. From showing patience and tolerance to a senior citizen to the importance of avoiding common distractions in the workplace, this program raises awareness about how each team member contributes to a positive interaction.
Quality Customer Service	Takes you through checklists that cover customer service fundamentals, and questions to pinpoint problems. Understand the basic needs of customers, the reasons why quality service is important and anticipate your customer's needs. How to handle complaints and difficult customers.
Telephone Courtesy & Customers Service	Develops a way of thinking about customers that will focus your efforts on putting quality customer service first. Learn techniques and tested methods for handling the telephone and everything from the sound of your voice to follow-up calls is covered. Telephone statements to avoid, and the value of asking effective questions.
Telephone Skills and Effective Communications	Learn to communicate and work effectively and politely with all types of callers. Handle complaints tactfully and provide the best service possible. Includes tips and techniques, voicemail, email and cellular.

Online Courses

21 Online Courses (Packet deal) Limited Availability

- *The Service Mentality*
- *From Curt to Courteous*
- *Five Forbidden Phrases*
- *Selling Skills From A-H*
- *Selling Skills From R-Z*
- *Essential Telephone Skills*
- *Seven Keys to a Positive Mental Attitude*
- *How to Avoid Emotional Leakage*
- *How to Handle the Irate Customer*
- *Essential Elements of Internal Customer Service*
- *Maintaining Customer Relationships*
- *How to Treat Every Caller As A Welcome Guest*
- *Listening Skills*
- *Questioning Techniques*
- *Six Cardinal Rules of Customer Service*
- *Selling Skills From I-Q*
- *Proactive Customer Service*
- *Six Steps to Service Recovery*
- *Business Friendly™ Customer Service*
- *Influencing The Interaction*
- *That's Just Rude*
- *How to Deal With the Foreign Accent*
- *Four C's of Coaching Skills*

Instructor Led Training

Cargo Securement Training

Defensive Driving	To provide training of knowledge and skills in defensive driving techniques. To prevent or reduce motor vehicle accidents or their severity among all employees both on and off the job.
First Aid - New Standard & CPR	To provide a course of instruction in basic techniques of administering first aid to victims at the scene of an accident or sudden illness.

Forklift Training

National Electric Code for Telecommunications

Reasonable Suspicious Training for Supervisors

Telecommunication 1010101	This introductory course provides an understanding of Telecommunications industry, the overall plan of the telephone system, the roll played by each element, and how the many elements tie together. It starts with plain old telephone service, includes telecom terms as well as basic theoretical principles of telephony and how they affect the services provided. The public switched telephone network; where we are now, how we got there and how it all works.

GENERAL

Locating Unlimited

Residential Cable Installation Basics

The course demonstrates what you'll need to know to retrofit all types of cable and hardware into existing walls. It starts with installation technique and tool training in a 2 story framed house, then takes you through three complete residential retrofit wiring projects, each in a different house construction type. The course covers retrofit planning, house framing, existing in-wall systems (electrical, plumbing, gas, A/C, etc.) and takes you through the most common retrofit techniques using the most appropriate tools.

Residential Cable Retrofit Installation

The course demonstrates what you'll need to know to retrofit all types of cable and hardware into existing walls. It starts with installation technique and tool training in a 2 story framed house, then takes you through three complete residential retrofit wiring projects, each in a different house construction type. The course covers retrofit planning, house framing, existing in-wall systems (electrical, plumbing, gas, A/C, etc.) and takes you through the most common retrofit techniques using the most appropriate tools.

Residential Networks Design & Installation

The course is designed to assist those wanting to learn design and installation of residential networks including data, RF, audio/video. Including field demonstrations, animations, and graphics, this course teaches how to know to plan, design and install structured cabling networks and systems in new construction and covers the basic technology of voice, broadband data, broadband RF, security, and distributed audio networks. It also demonstrates a complete custom home installation project with planning, prewire, trim-out, configuration, and testing tasks.