

Hands-On

Structured Wiring CAT-5e & CAT-6A Installer



Category 5e, 6A Installation, Pathways, Spaces, Grounding, Bonding
& System Documentation

Course Description

This Hands-On course is designed to provide attendees with knowledge on the requirements to meet the TIA 568 standards for structured wiring that is used to support Local Area Networks (LANs).

Participants will get an understanding of the methods and procedures used to place and certify a structured wiring system as well as industry standards that help ensure proper, fault-free installations.

This training includes the application of the latest standards and tools, including Wire Mapping and certification techniques used to support today's highspeed networks.

Our instructors have actual field experience and have faced the same obstacles and challenges as your team. Our actual In The Field technical experience allows us to provide participants with the answers, solutions and the skills to overcome their daily challenges.

Students Will Learn

- **Industry Standards and Codes Horizontal Cabling Termination Practices**
- **Grounding & Bonding**
- **Pathways**
- **Required Labeling**
- **Testing and Certifying**
- **Transmission Fundamentals**
- **Using the right tools for termination**
- **110 Punch-down Termination**
- **Modular crimping**
- **Cutting cable Preparing cable**
- **Termination configurations**
- **Termination practices for Category 6A and Category 5e**
- **Cable placement**
- **Cable support systems**
- **System Documentation**
- **As well as additional topics**
- **And much more...**

Target Audience

Technicians, installers, contractors, telecom managers, electricians, and anyone involved in repairing, installing, maintaining, designing, evaluating, or provisioning local area networks (LANs) or structured cabling.

Prerequisites

Basic understanding of telecommunications color codes and basic cabling, cable termination and testing are recommended prior to taking this course.

Prerequisite training is available in additional BTS courses.

Course Outline

Module I: Introduction To Structured Wiring

- What is Structured Wiring
- Difference between CAT-5e and Ethernet
- Categorized Cables
- Different Cable Types
- Use of Fiber

Module II: Cable Installation

- Link vs. Channel
- Tension Ratings
- Managing the Radius
- Pathways and Spaces
- Supporting the Cable
- Cables and the NEC

Module III: Cable Terminating

- Termination Schemes
- 568A vs.568B
- IDC Connections
- 5e vs. 6A Terminations

Module IV: Grounding and Bonding

- TIA-607 Requirements
- Ground and Continuity Testing
- Building Ground Bonds
- Equipment and Rack Bonding
- Ground Sizing
- Bonding OSP Entrance

Module V: Testing

Ethernet vs. CAT-5e / 6A

Verification vs. Qualification

Qualification vs. Certification

Required Equipment

Test Parameters

Module VI: Labeling and Documentation

Labeling requirements

Cabling

Grounding

Pathways

Spaces

Workstations

System Documentation

Featured Equipment

Fluke DTX-1800 Cable Certifiers

JDSU NT950 Validator

Viavi ONX-580 Copper Test Meter

AMEC Ground Tester

Ideal Ground Potential Testers

Basic wire mappers and continuity testers

Delivery Method

Instructor-Led with numerous Hands-On exercises throughout.

Equipment Requirements

(This apply's to our hands-on courses only)

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

Course Length

2 Days