

# CAT -6A (5-6-7) LIVE Virtual Instructor-Led Premise Cabling Installer Certification

Installation, Testing, Pathways, Spaces, Grounding, Bonding & System Documentation



## Course Description

This extensive Virtual "Live" Instructor-Led course recognizes that installers and or contractors often have a difficult time getting certified and getting the Hands-On experience needed to do the job. To many courses are focused toward test and exam questions, rather than the understanding and Hands-On Skill-Set to do the job inline with today's standards and competencies.

Our Certification Course to become an CAT -6A (5-6-7) Certified Technician is designed to get attendees up to speed quickly on industry standards, provide proper installation, knowledge and get Hands-On training that covers the latest standards, tools, including Wire Mapping and techniques used today's cable installations, and give them the ability to represent themselves as "CAT -6A (5-6-7) certified Installer."



BTS's Certification Course to become an BTS Certified Technician, a concise, well-structured course. It is taught by SME certified structured cable specialists with over 25 years of industry experience that includes network installations/upgrades for Telephone Companies, Power & Energy Companies, United States Federal & State Governments, School Districts, and major U.S. Corporations.

Our SMEs have the field experience to find the answers to real live scenarios, providing students with a Real World Experience.

Attendees each get a Certification Certificate, and I.D. Card

### Benefits

- Maximize system performance and reliability by learning today's installation techniques.
- Be aware of current industry standards, and become a trusted resource for your customer.
- Gain customer confidence by ensuring the integrity of their installations.
- Hold a Certification Installer Card that represents your Certification.
- BTS Certificate and I.D. card remains on electronic record and can be confirmed and reissued at any time.
- This Certification is Nationally and Internationally Recognized.

NOTE At the end of this course all attendees will be taking a written exam and a Hands-On Skills exam to complete their certification.

## Students Will Learn

- **Industry Standards and Codes**
- **Codes & Regulations**
- **Safety**
- **Structured Cabling Systems**
- **Horizontal Cabling**
- **Termination Practices**
- **Grounding & Bonding**
- **Perimeter Pathway**
- **TIA/EIA-606-A Labeling**
- **Wire Mapping**
- **Transmission Fundamentals**
- **Preparing Cable**
- **Recognize Termination Configurations**
- **Termination practices for Category 5-6-7 and Category and data modular connectors (RJ-45)**
- **Termination practices for Category 5-6-7 patch panels**
- **Termination practices for voice telephone line cords and modular plugs**
- **Termination practices for 110 wiring blocks and connecting blocks**
- **Splicing Cable**
- **Testing Cable**
- **Testing and Certifying Cable Throughputs**
- **Using the right tools for termination**
- **a. 110 Punch-down Termination**
- **b. Modular crimping**
- **c. Cutting cable**
- **d. Throughput Testing**
- **and More...**

## Target Audience

Installation technicians and supervisors of data networks, Test engineers who will be required to perform characterization or acceptance testing of structured cabling networks, Maintenance staff who will be required to perform routine maintenance or emergency fault finding and repair and anyone working with CAT 5-6-7 cabling.

## Prerequisites

Not required but suggested, a basic understanding of Telecommunications, which can be obtained in our course(s) -Hands-on Telephony Today for TeleCom Technicians

## Course Outline

### Module I. Project Planning

- a. Network Overview
- b. Building Structures
- c. Tools
- d. Cable
- e. Termination Hardware
- f. Test Equipment
- g. Liability
- h. Safety

### Module II. Cable Installation

- a. Codes and Standards
- b. Pulling Cables
- c. Supporting Cables
- d. Cable Obstacles
- e. Firestopping
- f. Cable Documentation
- g. Pathways
- h. Wire Mapping
- I. Special Tools

### Module III. Cable Terminating

- a. Pair Twist Limits
- b. Bend Radius
- c. Connector Types
- d. Cable Management
- e. Quality Workmanship
- f. Termination Lab

### Module IV. Testing

- a. Testing Specifications
- b. Test Types
- c. Testing Lab

**NOTE:** At the end of this course all attendees will be taking a written exam and a Hands-On Skills exam to complete their certification.

### Module V. Fiber Optics Overview (If required)

## **Module V. COAX/CATV Overview (If required)**

### **Notes**

NOTE At the end of this course all attendees will be taking a written exam and a Hands-On Skills exam to complete their certification.

### **Delivery Method**

LIVE Virtual Instructor-led with numerous labs and exercises.

### **Equipment Requirements**

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

List of Equipment

- Tools crimper, punch down, wire stripper
- Part splices/crimp connectors, RJ48/45 (solid & stranded versions)
- Cable CAT -6A (5-6-7) cable- test equipment CAT -6A (5-6-7) Testers, DMM, TDR, optical light source/power meter (as applicable per customer needs)

This course focuses on Catalog CAT -6A (5-6-7), but we can also tailor the course to cover coax, fiber, general splicing for any wire types, etc. In short, whatever media types and parts that your company normally uses, we would want to have those materials available for class.

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