

## Installation



**Certified Network  
Cable Installer**

**BTEC Level 3 Award  
(Copper)**



## Shaping the future of the Network Infrastructure Sector

### CNCI® Copper Cabling

#### Program Overview

**Become part of the biggest change in the Network Infrastructure Sector in many years...**

The CNCI® is shaping the future of the industry. The Certified Network Cable Installer (CNCI®) program (which consists of the 5 day CNCI® Copper Cabling and the 5 day CNCI® Fiber Optic Cabling programs) and certification is helping to shape the future of the network cabling infrastructure sector by introducing professional and industry recognized certification to cable installers.

The CNCI® is designed for those wishing to demonstrate the highest levels of knowledge, skills and expertise in network cabling infrastructures. With a team of professionally trained and CNCI® certified individuals the risks are significantly reduced and organizations can feel confident that their staff are competent to meet today's industry demands. Employing un-trained staff to work on critical projects poses a significant risk to your business. Employing professionally certified and qualified staff who you can rely on to deliver consistent results, significantly reduces that risk and offers an impressive Return On Investment (ROI) against the cost of the technical training.

The CNCI® Copper Cabling program is comprehensive and blends a perfect mix of theoretical study and practical installation, testing and survey exercises providing the right level of knowledge and skills for copper installation practices and, combined with the CNCI® Fiber Optic Cabling program provides official CNCI® certification. This proves that an individual is qualified to undertake cable installation projects to the highest possible caliber whilst working to the current industry standards including BS EN, TIA and ISO, whilst following the very latest codes of best practice. During the program learners will also have access to current standards for reference purposes.

### CNCI® Copper Cabling Topics

#### Introduction to Structured Cabling

- ▶ Cable media types
- ▶ Network topologies
- ▶ Categories

#### LAN Hardware

- ▶ PC's, switches, routers

#### Installing Structured Cabling

- ▶ National and International standards
- ▶ Interpreting drawings
- ▶ Risk evaluation
- ▶ Working in containment routes
- ▶ Cable installation, cable termination
- ▶ Tool and equipment selection

#### Network Overview

- ▶ What is a network?
- ▶ Characteristics of a network
- ▶ Resource sharing

#### Signal Theory

- ▶ Electrical principals
- ▶ DC current principals
- ▶ Analogue v. digital

#### Health & Safety

- ▶ Legislation
- ▶ Workplace risk
- ▶ Electrical safety
- ▶ Working at heights
- ▶ Working in confined spaces

#### Standards

- ▶ Why standards?
- ▶ Standards bodies BSI, ISO, CENELEC, TIA/EIA
- ▶ Categories and classes

#### Fire Stopping

- ▶ Why fire stop?
- ▶ Types of fire stopping
- ▶ Three pillars of fire stopping

#### Documentation & Labeling

- ▶ Floor plans
- ▶ Naming conventions
- ▶ Symbols
- ▶ Records

The **Global Leader in Technical Education**  
for the **Digital Infrastructure Industry**

### CNCI® Copper Cabling

#### 5 DAY PROGRAM

#### Learner Profile

This program is perfect for individuals wishing to acquire the very latest skills and knowledge to enable them to complete copper cable installation projects to the highest standards. It is relevant to new entrants to the cabling industry in addition to those already working within the cable installation environment wishing to formalize their skills. Project managers, IT personnel, installation technicians, network engineers and electricians would all benefit from attending this program.

#### Pre-Requisites

No previous experience is required to attend this program. However, if you are working in the Network Infrastructure industry, it will prove advantageous.

#### Program Objectives

Successful learners will have the knowledge and skills to confidently install, test and certify a complete copper cable installation. This forms part of the entry level requirement into the Global Digital Infrastructure Education Framework which allows learners to progress their knowledge, education and skills in line with their career within these fast moving industries.

If you are entering the industry or looking to formalize your skills with an industry recognized qualification and gain units towards the official CNCI® certification, this program, combined with the CNCI® Fiber Optic Cabling program, is perfect for you.

#### Qualification

- ▶ Level 3 BTEC Award Certified Network Cable Installer (Copper) - Optional at cost

#### Testing & Commissioning

- ▶ Continuity testing
- ▶ Certification/acceptance testing
- ▶ Level IV testing
- ▶ Saving of results to database
- ▶ O&M manuals

#### Practical

- ▶ Patch cord manufacture
- ▶ Cable installation
- ▶ Termination techniques UTP/STP
- ▶ Patch panel/outlet termination, Cat 5e/Cat6

#### Copper Testing

- ▶ Copper certification
- ▶ Set up test equipment
- ▶ Test procedures
- ▶ Troubleshoot
- ▶ Test standards/limits
- ▶ Diagnostics
- ▶ HDTDX and HDTDR