

Installation



Certified Network  
Cable Installer

BTEC Level 3 Award  
(Copper)



Customer Focused ▶▶▶  
Quality Driven ▶▶▶▶▶

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

Shaping the future of the Network Infrastructure Sector

## CNCI® Copper Cabling

### Program Overview

**Demonstrate the highest levels of knowledge, skills and competency in copper cable installation, termination and testing to the highest quality whilst complying to industry best practice and standards to ensure a right first-time approach.**

It's a comprehensive five-day program that blends a perfect mix of technical knowledge and practical activities for copper component installation. It proves that an individual is qualified to undertake copper cable installation projects to the highest calibre whilst working to the current national and international industry standards and industry best practice. During the program learners will be provided a valuable opportunity to access the latest industry standards.

The CNCI® certification is awarded on successful completion of both the CNCI® Copper Cabling and the CNCI® Optical Fibre Cabling programs.

The CNCI® certification has become the industry preferred certification for network cable installation and is specified as a requirement on many job profiles and installation project contracts. In addition, manufacturers, major installation companies, associations and consultants endorse the certification knowing that it provides the right level of technical knowledge, competence and confidence to the industry. In recognition of the CNCI® certification many manufacturers also award accreditations towards their product warranties.

On successful completion of the CNCI® Copper Cabling program it is recommended that you attend the CNCI® Optical Fibre Cabling program to secure the official CNCI® certification. Following this you are encouraged to continue your professional development by advancing your knowledge and skills to gain further official certifications and qualifications by progressing through The Global Digital Infrastructure Education Framework which maps education programs to career advancement throughout the network infrastructure and data centre sectors.

## 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 Safety

- ▶ Why fire stop?
- ▶ Types of fire stopping
- ▶ Three pillars of fire stopping
- ▶ Construction Product Regulations (CPR)

### Documentation & Labelling

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

## CNCI® Copper Cabling

### 5 DAY PROGRAM

#### Program Content:

The CNCI® Copper Cabling program consists of 195 pages of rich technical content.

#### Learner Profile

The CNCI® Copper Cabling 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 network cable infrastructure sector in addition to those already working within the cable installation environment wishing to formalise their knowledge and skills.

#### Pre-Requisites

No previous experience is required to attend this program.

#### 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 formalise your skills with an industry recognised qualification and gain units towards the official CNCI® certification, this program, combined with the CNCI® Optical Fibre Cabling program is perfect for you.

#### Qualification

- ▶ Internationally and industry recognised BTEC Level 3 Award Certified Network Cable Installer (Copper)

### 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

### Fluke CCTT (Copper)

- ▶ Copper certification (DSX)
- ▶ Set up DSX
- ▶ Test using DSX
- ▶ Troubleshoot
- ▶ Test standards/limits
- ▶ DSX Diagnostics
- ▶ HDTDX and HDTDR