

Installation



Certified Network  
Cable Installer

BTEC Level 3 Award  
(Optical Fibre)



Blended Learning through  
Remote Attendance and  
Practical Sessions



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

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

## CNCI® Optical Fibre Cabling

### 6 DAY PROGRAM

Split into:

- ▶ 4 Day Optical Fibre Theory  
(via Remote Attendance)
- ▶ 2 Day Practical Session (Classroom)

#### Learner Profile

The CNCI® Optical Fibre Cabling program is perfect for individuals wishing to acquire the very latest skills and knowledge to enable them to complete fibre optic 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 Requirements

Learners are required to bring a laptop or suitable device with unrestricted internet connectivity, with a suitable application for opening and reading PDFs. Typically, your device's in-built PDF reader is sufficient. If preferred a smartphone can be used, however a smaller screen may not give the best learning experience.

#### Program Objectives

Successful learners will have the knowledge and skills to confidently install, test and certify a optical fibre cable installation. 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® Copper Cabling program is perfect for you.

#### Qualification

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

Shaping the future of the Network Infrastructure Sector

## CNCI® Optical Fibre Cabling

### Program Overview

Demonstrate the highest levels of knowledge, skills and competency in fibre optic 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 six-day program that blends a perfect mix of technical knowledge and practical activities for fibre optic component installation. It proves that an individual is qualified to undertake fibre optic 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® Optical Fibre and the CNCI® Copper 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® Optical Fibre Cabling program it is recommended that you attend the CNCI® Copper 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® Optical Fibre Cabling Topics

### Safely Working with Fibre/General Safety

- ▶ LED, VCSEL, laser safety
- ▶ Fibre preparation hazards, disposal of sharps
- ▶ Hazardous substances
- ▶ OSP safety, pits, gas detection
- ▶ General safety

### Network Overview

- ▶ History of fibre
- ▶ Advantages
- ▶ What is a network?
- ▶ Benefits of a network
- ▶ Topologies
- ▶ Why a network?

### Hardware

- ▶ Cable construction
- ▶ LED, VCSEL, laser sources
- ▶ Switches, routers, media converters

### Theory of Light Transmission

- ▶ Optical windows
- ▶ Electromagnetic spectrum
- ▶ Transmission
- ▶ Media choice

### Cable

- ▶ Construction
- ▶ Choice of cable
- ▶ Installation practices
- ▶ Patchcords

### Enclosures

- ▶ ODF
- ▶ 19" Splice tray
- ▶ Slack fibre management, protection, patch field

### Standards

- ▶ Standards bodies BSI, ISO, CENELEC, TIA/EIA
- ▶ Classifications
- ▶ Application distances

### Connectors

- ▶ Connector types
- ▶ Functionality
- ▶ Density (SFF)

### Outside Plant (OSP)

- ▶ Fibre backbone in the LAN
- ▶ Hardware
- ▶ Media choice

### Fibre Splicing

- ▶ Safety
- ▶ Fusion splicer set up and operation
- ▶ Singlemode programs
- ▶ Multimode programs
- ▶ Splicing in patch panels

### Fibre Termination

- ▶ Safety
- ▶ Pigtail manufacture
- ▶ Techniques, cold cure, mechanical splice, fusion splice
- ▶ End-face inspection techniques

### Fluke CCTT (Fibre)

- ▶ Tier 1 fibre certification (CertiFibre® Pro)
- ▶ Tier 2 fibre certification (OptiFibre® Pro)
- ▶ Encircled Flux (EF)
- ▶ End face inspection
- ▶ Set a reference
- ▶ OTDR event types
- ▶ OptiFibre® Pro link testing