

Installation



Certified Network  
Cable Installer

BTEC Level 3 Award  
(Optical Fibre)

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

## CNCI® Optical Fibre Cabling

### 5 DAY PROGRAM

#### Program Content:

The CNCI® Optical Fibre Cabling program consists of 213 pages of rich technical content.

#### Learner Profile

This 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 cabling industry in addition to those already working within the cable installation environment wishing to formalise 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 fibre optic 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® 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

**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® Optical Fibre Cabling programs) and certification is helping to shape the future of the network cabling infrastructure sector by introducing professional and industry recognised 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 organisations 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 Optical Fibre 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 optical fibre installation practices and, combined with the CNCI® Copper Cabling program provides official CNCI® certification. This proves that an individual is qualified to undertake cable installation projects to the highest possible calibre 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.

The CNCI® Optical Fibre Cabling program is classroom-based and led by one of CNet's expert Instructors.

### 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 slicer set up and operation
- ▶ Singlemode programs
- ▶ Multimode programs
- ▶ Slicing 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