

## 5 Day Program

### Program Content

The CNCI® Fibre Optic Cabling Program consists of **213 pages of rich technical content** of learning and reference material.

### Student Profile

This program is designed for individuals wishing to acquire the very latest skills and knowledge to install fibre optic cable to the highest standards. Both new entrants to the cabling industry and those already working within the cable installation environment wishing to formalise their skills would benefit from attending this program. Project managers, IT personnel, installation technicians, network engineers and electricians would find the content of the program of great use.

### 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 delegates will have the knowledge and skills to confidently to install, test and certify a complete optical fibre installation. This forms part of the entry level requirement into the Global Network Infrastructure and Data Centre Education Framework which allows delegates 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

- ▶ BTEC Advanced Award in Data Communications Cable Installation (Fibre)

### Additional Awards

- ▶ CNet Training Certificate

## CNCI® Fibre Optic Cabling - 5 Days

### Program Overview

**Become part of the biggest change in the Network Infrastructure Industry 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® Fibre Optic Cabling programs) and certification is helping to shape the future of the network cabling infrastructure industry 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. When you consider the huge risks associated with not employing professionally qualified people staff, coupled with the impressive Return on Investment (ROI) from utilising trained staff, the answer is to have trained and qualified employees you can rely on to deliver consistent results.

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® Fibre Optic 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 and following the very latest codes of best practice.

### CNCI® Fibre Optic Cabling Topics

- ▶ Introduction to Fibre
- ▶ Safely Working with Fibre/General safety
- ▶ Network Overview
- ▶ Hardware
- ▶ Theory of Light Transmission
- ▶ Cable
- ▶ Enclosures
- ▶ Standards
- ▶ Outside Plant (OSP)
- ▶ Documentation & Labelling
- ▶ Testing
- ▶ Fire Stopping
- ▶ Cable Termination/Practical
- ▶ Fluke CCTT (Fibre)

*“The CNCI program brings an industry recognised certification that will demonstrate both capability and credibility and we welcome it.”*

Head of Physical Infrastructure  
Computacenter

## Introduction to Fibre

- ▶ Terminology
- ▶ Components

## 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
- ▶ The future
- ▶ What is a network
- ▶ Benefits of a network
- ▶ Topologies
- ▶ Why a network

## Hardware

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

## 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

- ▶ CENELEC, ISO, TIA/EIA
- ▶ Classifications
- ▶ Application distances

## Connectors

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

## Outside Plant (OSP)

- ▶ Fibre To The Home (FTTH)
- ▶ Procedures
- ▶ Media choice

## Documentation & Labelling

- ▶ Plans
- ▶ Symbols
- ▶ Labelling
- ▶ Naming conventions
- ▶ Records

## Fire Stopping

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

## Cable Termination/Practical

- ▶ Safety
- ▶ Pigtail manufacture
- ▶ Techniques, cold cure, mechanical splice, fusion splice
- ▶ Site survey/plan

## Fluke CCTT (Fibre)

- ▶ Tier 1 fibre certification (CertiFiber® Pro)
- ▶ Tier 2 fibre certification (OptiFiber® Pro)
- ▶ Encircled Flux (EF)
- ▶ End Face Inspection
- ▶ Set a reference
- ▶ OTDR event types
- ▶ OptiFiber® Pro link testing