

As a qualified Network Cabling Installer your work will mainly be located inside buildings and involve the preparation of copper and fibre optic cabling connecting data networks. As a trained engineer you could be leading a team within six months from course completion, whilst managing projects is a distinct possibility after approximately 18 months on-the-job experience. The additional knowledge gained in part three of the course provides a comprehensive introduction into the location and installation of wireless LAN equipment.

**WEEK 1**

**Datacommunications Cabling**

During the first week you will gain an introduction to the fundamentals of cabling for computer networks, providing the skills & confidence to install & test copper datacommunications cabling.

- ▶ Basic Theory
- ▶ Cabling media
- ▶ Structured premises cabling systems
- ▶ Cable termination
- ▶ Standards
- ▶ Cabling diagrams
- ▶ Cable laying & fixings
- ▶ Testing

**WEEK 2**

**Fibre Optic Single & Multimode Installation & Testing**

concentrates on single & multimode fibre. You will learn the essentials of installing, terminating & testing fibre optic cable within the datacommunications environment.

- ▶ Now & in the future
- ▶ Health & Safety
- ▶ Optical transmission theory
- ▶ System attenuation
- ▶ Cable types & specification
- ▶ Optic passive connectors
- ▶ Tooling & fibre preparation
- ▶ Connectors & termination
- ▶ Installation techniques
- ▶ Fibre cable joint enclosures
- ▶ Fusion splicing
- ▶ Testing & fault finding
- ▶ Optical Time Domain Reflectometer (OTDR)
- ▶ Standards & codes of practice

**WEEK 3**

**Overview of testing Copper and Fibre Systems**

- ▶ Fibre design rules
- ▶ Fibre connector specifications
- ▶ Fibre network designs
- ▶ Health & safety
- ▶ Instrument capabilities
- ▶ Instrument Limitations
- ▶ Measuring
- ▶ Common problems
- ▶ Operational procedure
- ▶ Efficient operation
  
- ▶ Copper Introduction & objectives
- ▶ Design of copper based systems
- ▶ Copper Testing requirements
- ▶ Industry testers
- ▶ EMC
- ▶ Troubleshooting
- ▶ Documentation

**WEEKS 4 & 5**

- ▶ 2 weeks' On-Site Industry Training



**50% Theory 50% Practical**

(split into two sections):  
**Weeks 1, 2 & 3:** Gain your qualifications  
**Weeks 4 & 5:** 2 weeks' On-Site Industry Training.

▶ **Course ambition**

On successful completion, participants become competent in the installation and testing of copper cable as well as single and multimode fibre opticscabling for voice and data transmission.

▶ **Prerequisites**

No previous experience required.

▶ **Qualifications**

City & Guilds 3667-01, 02, 03, 04 Certificate in Communications Cabling (Level 2)  
BTEC level 3 Advanced Award in Datacommunications  
Cable Installation (Copper) (Level 3)  
BTEC Intermediate Award in Datacommunications  
Cable Installation (Fibre) (Level 3)  
BTEC Advanced Award in Wireless LAN

