



# City & Guilds 3668-02

Level 2 Award in  
Communication Cabling

The City & Guilds 3668-02 Awards in Communications Cabling are suitable for those interested in becoming communication cabling installers or those currently doing the job and seeking certification.

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# City & Guilds 3668-02

## Level 2 Award in Communication Cabling

### UNIT 1

#### Principles of Communication Cabling

#### COURSE CONTENT

- Identify safe working practices in communication systems
- Basic principles of SI unit symbols
- Basic principles of communication systems
- Basic principles of data communication

##### Identify Safe Working Practices in Communication Systems

- Undertaking installation
- Carrying out preparation
- Precautions when carrying out an communications installations
- Terminating cables

##### Basic Principles of SI Unit Symbols

- Basic SI units
- Names and symbols for preferred SI prefixes
- Waves and wave motion
- Amplitude, wavelength, frequency and the unit frequency
- Relationship between velocity, frequency and wavelength

##### Basic Principles of Communications Systems

- Types of communication systems
- Methods of communication
- Differences between analogue and digital signals
- Advantages & disadvantages of fibre versus copper

##### Basic Principles of Data Communication

- Advantages & disadvantages of digital versus analogue
- Types of computer networks
- Advantages & disadvantages of serial versus parallel data communication

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### UNIT 2

#### Fibre Optic Cabling in an Internal & External Environment

##### COURSE CONTENT

- Safety regarding working with fibre optics in an internal & external environment
- Recommended installation procedures and standards
- Preparation of cable/fibres for connectorisation & splicing
- Splicing of optical fibres, connector termination & testing of fibre optic links

##### **Working Safely with Optical Fibres in an Internal & External Environment**

- Safe working procedures of installation of fibre cables
- Safe working in preparation of fibre cables
- Special precautions and safe working procedures in relation to splicing and termination

##### **Recommended Installation Procedures**

- Use of fibre optics in LAN's
- Types of optical fibres
- Fibre specifications and parameters
- Fibre and cable test methods and documentation
- Components within an optical fibre communication system
- Best practices and fibre management of installation

##### **Preparation for Fibre Connectorisation and Splicing**

- Cable characteristics
- Constructional features of fibre optic cables
- Cutting & stripping tools
- Fibre preparation, cleaning and techniques used

##### **Splicing Together Optical Fibre**

- Principles and methods of splicing
- Cleaving
- Fusion and mechanical splicing equipment and applications
- Performance in relation to industry standards
- Troubleshooting

##### **Terminating Fibre Optic Cable by Fitting Connectors**

- Types and use of common connectors
- Termination tools and materials
- Fitting procedures for connectors
- Common faults in termination
- Performance tests

##### **Testing Fibre Optic Links**

- Measuring Loss & test methods
- Test equipment, their features and testing procedures
- Operating test equipment
- Understanding and identifying test results
- Documenting & comparing results

##### **Exam & Assessment Method**

- City and Guilds multiple choice assessment - 1 hr
- Assessed practical exercises