



# 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 3

#### Copper in an Internal Environment

#### COURSE CONTENT

- Safety regarding working with copper cabling in an internal environment
- Basic electrical theory and safety
- 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 Copper Cabling in an Internal Environment**

- Safe working procedures in line with industry guidance and regulations in regards to; installation, preparation, electrical safety, battery/electrically powered test equipment
- Risk assessment

#### **Basic Electrical Theory and Safety in Regard to Data Communications Cabling**

- Electrical symbols and basic theory
- What are MHz and Mbits
- Testing parameters
- Copper communications signalling
- Management and rules of copper cable installation
- Copper cabling wiring diagrams

#### **Installing Copper Communication Cabling**

- Site surveys
- Cable laying procedures
- Cable types topologies for installation
- Classes, standards and categories of cabling
- Rules and special precautions observed for installation and site surveys

#### **Terminating Copper Communication Cabling**

- Terminating hardware with manufacturers guidance
- Cable preparation and terminating tools
- What is IDC methods
- What is LJU's
- Rules and special precautions of termination
- Identifying appropriate situations and environments

#### **Testing FTP, UTP and Multicore Copper Links**

- FTP & UTP copper cable links
- Multicore installation
- Telephone cabling systems
- Testing cabling plan installations
- National and international testing standards
- Measurement methods
- Testing telephone cabling

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

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