City & Guilds 3667-02
Unit 1 Principles of Communications Cabling

Description	This unit is concerned with safe working practices and the basic principles of communications systems.
Venue	Melksham, Wiltshire
Duration	Depending on units selected—Either 5 or 9 days

COURSE CONTENT

Identify Safe working practices in communication systems

- Undertaking installation
- Carrying out preparation
- Precautions when carrying out a communications installation
- Terminating cable s

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 SI Units 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 Data Communication

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

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City & Guilds 3667-02
Unit 2 Fibre Optic Cabling in an Internal Environment

Description	This unit is concerned with the installation, splicing, connectorisation, termination and testing of fibre optic cable in a typical internal datacomms environment,
Venue	Melksham, Wiltshire
Duration	Depending on units selected—Either 5 or 9 days

COURSE CONTENT

Working Safely with Optical Fibres in an Internal 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 cable
- Cutting and stripping tools
- Fibre preparation, cleaning and techniques used

Splicing Together Optical Fibres

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

Testing Fibre Optic Links

- Measuring loss
- Test equipment and their features
- Testing procedures
- Operating test equipment
- Understanding and identifying test results

Exam and Assessment Method

City & Guilds Multiple Choice Assessment

- Online 1 hour City & Guilds—Multiple choice

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