

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

Description This unit covers safe installation, procedures and testing of copper communication cables.

Venue Melksham, Wiltshire

Duration Depending on units selected—Either 5 or 9 days

COURSE CONTENT

Working Safely with Copper Cabling in an Internal Environment

- ◆ Safe working procedures in line with industry guidance and legislation regarding;
 - Installation
 - Preparation
 - Electrical safety
 - Battery/electrically powered test equipment
- ◆ Risk assessments

Basic Electrical Theory and Safety in Regard to Data Communications Cabling

- ◆ Electrical symbols and basic theory
- ◆ What are MHz and Mbits
- ◆ Testing parameters
- ◆ Copper communication signaling
- ◆ 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 survey

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

Exam and Assessment Method

City & Guilds Multiple Choice Assessment

- ◆ Online 1 hour City & Guilds—Multiple choice
- ◆ Assessed practical exercises