



# City & Guilds

## 3666 Unit 1

### City & Guilds

## Basic Principles of Communication Systems 3666 (Core Unit 1)

- Description:** For those undergoing training or those employed as installation technicians in the telecommunications and media network also beneficial for the IT Managers & IT specialists. Core unit 01, A requirement to achieve a complete 3666 full accreditation along with one of the following optional 3666 units 2, 3 or 4.
- Venue:** Fibreplus Training Centre, Wiltshire
- Duration:** Three Days
- Dates:** This course is offered continuously throughout the year. Please refer to the online Calendar enclosed for the start date of the next convenient course.
- Price:** Please refer to current price list. **FIBREPLUS PRICE GUARANTEE.** We guarantee, you will not be able to find this course at a lower advertised fee anywhere else in the UK, or we will provide your course at 5% less.

#### Risk Assessment & Method Statement

- Assess risks and create a method statement

#### Health and Safety at Work Reg.

- PPE,
- PUWER
- Confined Space Regulation,
- Electrical at Work Regulation BS 7671
- Working at Height Regulation
- Control Of Substances Harmful To Health
- Confined Space Regulation
- Laser Safety BS60825
- Asbestos Regulation

#### Understanding of communications systems

##### SI Units and symbols

- Electrical Symbols and Units
- Measurement
- Frequency

#### Understanding of basic electricity

- Ohms Law
- The Atom
- AC/DC
- EMI

#### Transmission Characteristics

- Principles of Voice, Video & Data systems
- Understanding of Bandwidth & Frequency
- Digital & Analogue
- RF transmission

#### Cable Type and Choices

- Category or Class
- Copper Components & Equipment
- Coaxial, 1308, UTP, FTP, STP & Multipair
- Fibre i.e. Multi /Single Mode
- OM1, OM2, OM3 or OS1

#### Different types of Emitters & Detectors

- LED
- Laser
- VCSELs
- Photo Diode, PIN & APD

#### Theoretical Knowledge of cable installation

- Bandwidth Limitations
- Length, Distance Limitations
- Variants of Copper & Fibre Optics

#### Understanding of systems

- TDM
- DWDM
- WDM
- Multiplexing

#### Understanding of European & International Standards

- ITU
- Genelec
- BS EN50173
- BS EN 50174 1-2
- ISO 11801
- ASSESSMENT

#### Cable Separation & Segregation

- IT Cabling Screened & Unscreened
- Power Screened & Unscreened
- Containment and Tray Population

#### City & Guilds Multiple Choice Assessment