

### City & Guilds 3667-03 Level 3 Certificate in Designing & Planning Communications Networks

	Description	This course is aimed at new entrants, e.g cable installers or for those looking to enhance their	
		promotion prospects. It is also suitable for learners career progression within the industry. The level 3 in	
		Design & Planning Communications Networks combines the study of current telecommunications and	
		networks, planning and management. This qualification also provides progression for learners who have	
		completed the City & Guilds 3667-02 Award in Communication Cabling	

# **COURSE CONTENT**

## (Unit 1) Concepts of Designing & Planning a Communications Infrastructure

- Terms used and different types of communications infrastructure
- Principles of planning
- UK Licenses, legislation and codes of practice
- Project management tools

## (Unit 3) Design & Plan for an External Overhead Network Cabling Infrastructure

- Site Survey—External overhead telecoms infrastructure
- Preliminary, provisional and detailed designs for an external overhead communications cabling infrastructure
- Determining workflow activities

## (Unit2) Design& Plan for an Internal Network Cabling Infrastructure

- Site Survey—Internal Network Cabling Infrastructure (NCI)
- ◆ NCI— provision options and optimum routes
- NCI Designs

## Design & Plan for an External Underground Network Cabling Infrastructure

- Site survey— External underground telecoms infrastructure
- Preliminary, provisional and detailed design for an external underground communications infrastructure
- Determining workflow activities











#### City & Guilds 3667-03 Unit 1 Concepts of Designing and Planning a Communications Infrastructure

Description	This unit is concerned with the principles of Designing and Planning Communications Infrastructures in a range of environments.
Maran	Main Fibreplus Ltd Training Centre: Melksham Wiltshire.
Venue	Centres: Melksham - Dunfermline - Peterborough - Lancaster - Surrey
Duration	10,15 or 20 Days—Depending on Units Selected

## COURSE CONTENT

#### Common and Network Infrastructures & Terms Used

- Common terms used
- Communication Infrastructures
- Infrastructure environments
- Network classes

#### **Planning Concepts**

- ◆ Role of infrastructure planning
- Reasons for planning
- Drivers for planning
- Annual charges and costs
- Inherent construction and maintenance costs

#### **Importance of UK 3rd Party Issues**

- Wayleave and 3rd party issues
- 3rd party impacts on a project
- Preliminary survey s
- Use of a detailed survey
- Importance of routes to programmed delivery costs

#### **Legislation & Regulations**

- Acts of parliament and relevance upon infrastructure planning.
- Operators license conditions
- Codes or practice and standards
- Health & safety legislation

## Customer Needs in Regard to an Engineering Scope of Works

- Importance of customer requests in an engineering requirement
- Identifying souces of information useful to design and planning of a telecoms infrastructure

## Project Management Tools, Techniques and Other Supporting Documentation

- Suitable diagrammatic representation and how its used in the construction process
- Critical path
- Records involved
- Geographical and non-geographical record
- Advantages & disadvantages of digital media

#### Exam & Assessment Method

City & Guilds 15 question written exam











#### City & Guilds 3667-03 Unit 2 Design & Planning for an Internal Network Cabling Infrastructure

Description	This unit will provide the learner with the basic principles needed to plan an underground cable route. Also how internal or campus communications infrastructure is specified, planned and provided.
Venue	Main Fibreplus Ltd Training Centre: Melksham Wiltshire.
	Centres: Melksham - Dunfermline - Peterborough - Lancaster - Surrey
Duration	10,15 or 20 Days—Depending on Units Selected

# **COURSE CONTENT**

#### Site Surveys

- Systems, areas, data and equipment required
- Plans & records of areas to be surveyed
- Constraints to systems and equipment
- Health & safety issues
- Variations and accurate recording

#### **Optional Provisions & Optimum Routes**

- Relevant legislation, regulations and organizational obligations
- Options & costing
- ♦ Forecasts
- Obtaining authority
- Principles of risk, cost benefit and sensitivity analysis

## Design—Internal Network Cabling Infrastructure

- Produce designs and identify components
- ♦ Hazards
- Types of internal network cabling infrastructure
- Constraints & limitations
- Legislation & regulations
- Network Infrastructure—
- Duct, chambers, joints etc.

### **Detailed** Plans

- Work activities
- ♦ Costing
- Potential risks
- Methods of assessing
- Financial confidentiality

#### **Co-ordinating Provisions**

- Work programs
- Resource management
- Critical path activities
- Safety & quality standards
- Timescales

### Legislation & regulations

- ◆ Radio frequency allocation
- Planning authority
- Highways authority

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

Assessed design project











#### City & Guilds 3667-03 Unit 3 Design & Planning for an External Overhead Network Cabling Infrastructure

Description	This unit will provide the learner with the basic principles needed to plan an external overhead cable route. Also how internal or campus communications infrastructure is specified, planned and provided.
Venue	Main Fibreplus Ltd Training Centre: Melksham Wiltshire.
	Centres: Melksham - Dunfermline - Peterborough - Lancaster - Surrey
Duration	10,15 or 20 Days—Depending on Units Selected

# COURSE CONTENT

#### Site Surveys

- ◆ Systems, areas, data and equipment required
- Plans & records of areas to be surveyed
- Constraints to systems and equipment
- Health & safety issues
- Variations and accurate recording
- Hazardous environments

### **Preliminary Designs & Provisions**

- Planning and collating information
- Budget calculation
- ♦ Forecasts
- Obtaining authority
- Telecoms infrastructure capability
- Emerging technology

## Design—External Overhead Network Cabling Infrastructure

- Produce designs and identify components
- ♦ Hazards
- Types of telecoms systems
- Constraints & limitations
- Legislation & regulations
- ♦ Network Infrastructure—
- Duct, chambers, joints etc.

## **Detailed** Plans

- Work activities
- Costing
- Potential risks
- Methods of assessing
- Financial confidentiality

## **Workflow Activities**

- Work programs
- Resource management
- Critical path activities
- ♦ Safety & quality standards
- Timescales

## Legislation & regulations

- Radio frequency allocation
- Planning authority
- Highways authority

### **Exam & Assessment Method**

Assessed design project











#### City & Guilds 3667-03 Unit 4 Design & Planning for an External Underground Network Cabling Infrastructure

Description	This unit will provide the learner with the basic principles needed to plan an underground cable route. Also how internal or campus communications infrastructure is specified, planned and provided.
Venue	Main Fibreplus Ltd Training Centre: Melksham Wiltshire.
	Centres: Melksham - Dunfermline - Peterborough - Lancaster - Surrey
Duration	10,15 or 20 Days—Depending on Units Selected

# COURSE CONTENT

#### Site Surveys

- Systems, areas, data and equipment required
- Plans & records of areas to be surveyed
- Constraints to systems and equipment
- Health & safety issues
- Variations and accurate recording
- Hazardous environments

### **Preliminary Designs & Provisions**

- Planning and collating information
- Budget calculation
- ♦ Forecasts
- Obtaining authority
- Telecoms infrastructure capability
- Emerging technology

## Design—External Overhead Network Cabling Infrastructure

- Produce designs and identify components
- ♦ Hazards
- Types of telecoms systems
- Constraints & limitations
- Legislation & regulations
- ♦ Network Infrastructure—
- Duct, chambers, joints etc.

#### **Detailed Plans**

- Work activities
- ♦ Costing
- Potential risks
- Methods of assessing
- Financial confidentiality

### **Workflow Activities**

- Work programs
- Resource management
- Critical path activities
- Safety & quality standards
- Timescales

## Legislation & regulations

- ♦ Radio frequency allocation
- Planning authority
- Highways authority

### Exam & Assessment Method

Assessed design project







