

Course Title: 3667-02 Level Award in Communications Cabling
Unit 103 Fibre Optic Cabling in an External Environment

Duration: 4 days

Course Overview:

This unit is concerned with the installation, splicing, termination and testing of fibre optic cables, typically a multi-element, single mode fibre cable of at least 24 fibres, used in an external environment

Delivery Method

Classroom instructor led with practical hands on exercises

Objectives:

At the end of this unit the student will be able to:

1. Work safely with optical fibres in an external environment
2. Follow recommended installation procedures
3. Prepare fibre optic cable for fibre splicing
4. Joint fibre optic cables by splicing
5. Terminate fibre optic cables by splicing on pre-terminated pigtails
6. Test fibre optic links

Content Headings:

Working Safely with Optical Fibres in an External Environment

- Safe working procedures and regulations in regard to;
Installation
Splicing
Testing
Industry legislation/guidance

Recommended Installation Procedures

- Fibre optics in communication networks
- Fibre specifications and parameters
- Test and inspection methods
- Components and equipment
- Best practices and fibre management
- Testing methods
- Cable laying procedures

Preparing Fibre Optic Cable for Fibre Splicing

- Identifying Cables
- Constructional features of single mode fibre
- Cable cutting and stripping tools
- Fibre cleaning materials and techniques
- Preparing cable for splicing

Joining Fibre Optic Cables by Splicing

- Cable jointing environment
- Working principles of splicing
- Preparing bare fibre
- Splicing fibres
- Sealing and cable retention for joint enclosure

Terminating Fibre Optic by Splicing on pre-terminated pigtails

- Suitable connectors for telecoms environment
- Cable termination
- Cleaving, tools and techniques
- Splice management and protection systems

Testing Fibre Optic Links

- Test methods
- Testing equipment i.e. ILM, OTDR.
- Understanding results
- Documenting and comparing results

Assessment:

City & Guilds Multiple Choice Assessment - Online 1 hour and a practical assignment