Open Awards Qualification Unit

This unit forms part of a regulated qualification. Barring applies (see below).

1 Unit Details

Unit Title:	Fibre Optics Introduction
Unit Reference Number:	K/618/8297
Level:	2
Credit Value:	3
Minimum GLH:	20

2 Learning Outcomes and Criteria

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand the terminology and advantages of fibre optic	1.1 Identify and use Systeme Internationale (SI) prefixes/units
	1.2 Describe analogue and digital transmission
	1.3 Describe the wavelengths of the electromagnetic spectrum used for fibre optic transmission
	1.4 State the main components of a fibre-based communications system
	1.5 List at least two benefits and one drawback of using optical fibre over copper cable
2. Understand the concept of light transmission through optical fibres	2.1 Describe the structure of an optical fibre
	2.2 State standard sizes for communications fibres
	2.3 Describe how light travels along a fibre
3. Know the different types of fibre optic cables	3.1 State at least two common requirements for external and internal grade cables
	3.2 Describe the standard features of external and internal cables

4.	Understand the standard techniques used to join fibres	4.1	State at least two common problems encountered when joining fibres
		4.2	Describe two methods of joining fibres
		4.3	Describe the main steps involved in performing a fusion splice
5.	Understand the principles and function of connectors	5.1	Identify at least three main types of fibre connector
		5.2	List two accepted methods of cleaning connectors
		5.3	Describe laboratory and field equipment used for inspecting fibre connectors
		5.4	Describe the basic component parts of an optical connector

This Unit is barred with M/618/8298 L3 Fibre Optics Installation and Testing

Required Equipment
In order to deliver this unit, centres will require the following equipment for every **eight** (8)learners on the course: Auto Fusion Splice 1 OTDR, 1 LS & PM, 1 VFL Fibre test box 1 set of fibre tools Pigtails,. Fibre, cable Joint enclosure Fibre patch panel Connector samples Mechanical splices