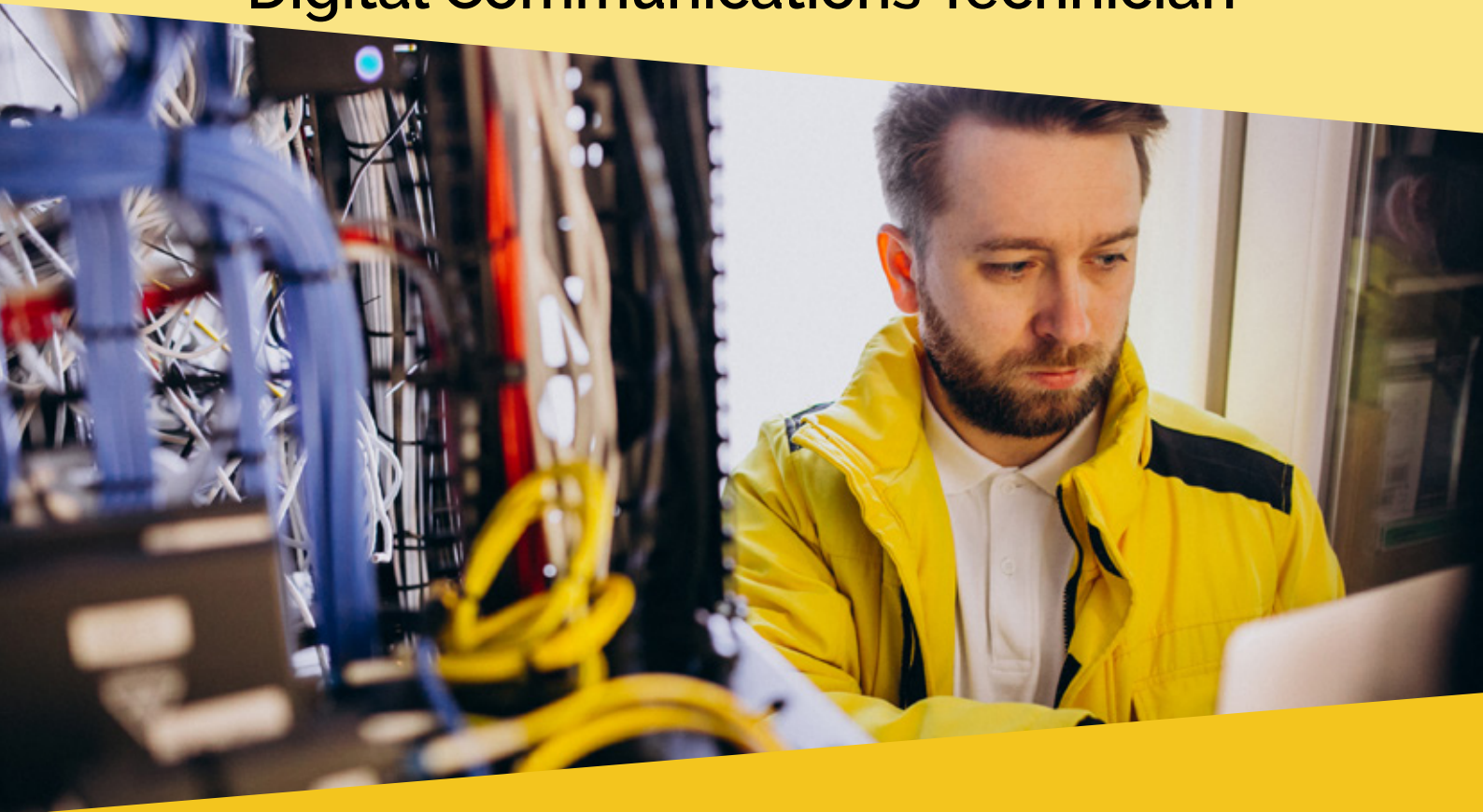




Knowledge objective support for
Level 3 Information Communications Technician - Option 3:
Digital Communications Technician

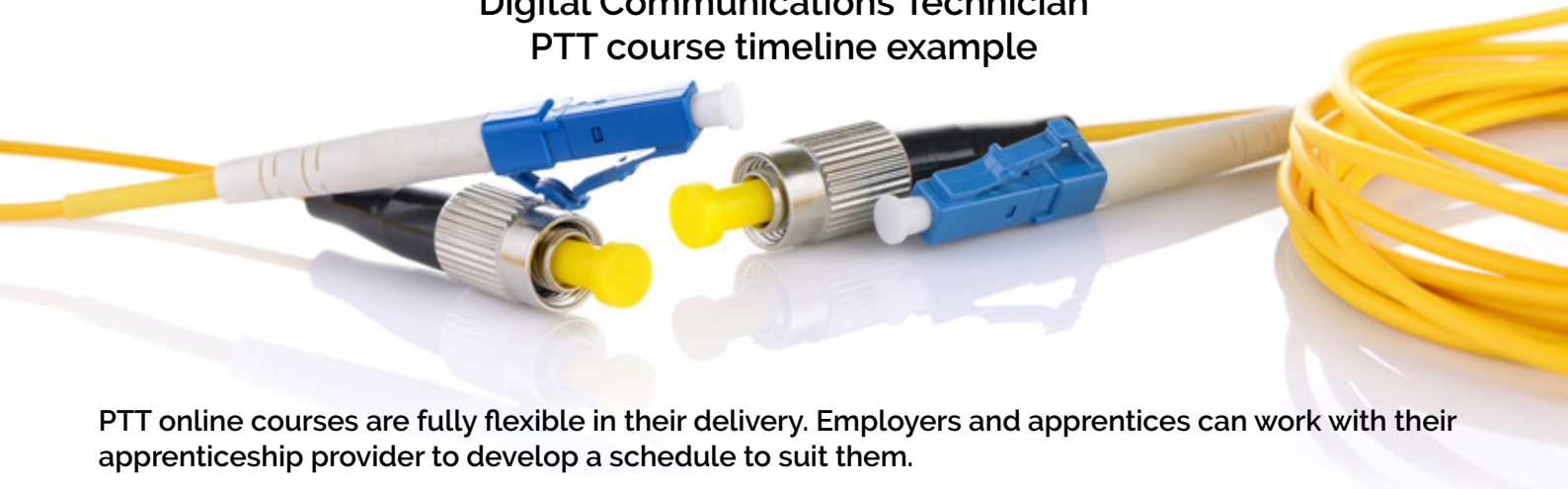


**Cover over 70% of knowledge objectives
through PTT online training**

- **16 online courses cover the majority of objectives**
- **Aids learner understanding when blended with on-the-job tasks**
- **Flexible delivery to suit the learner and employer schedules**
- **Certificates of completion to prove knowledge for learner portfolio**
- **Proven, effective method of delivery**

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Digital Communications Technician PTT course timeline example



PTT online courses are fully flexible in their delivery. Employers and apprentices can work with their apprenticeship provider to develop a schedule to suit them.

The topics covered by the PTT online courses could be reviewed periodically in virtual or classroom-based tutor support sessions to re-enforce learning through class-wide discussions.

Below is an example of how most of the knowledge objectives can be delivered in 7 months.

Month 1

PAA: Analogue and digital signals	K4, K37
PAB: Signal impairments	K42

Month 2

PAC: Transmission fundamentals	K39
PAE: Data communications principles	K24, K40
TFA: Telephony and data services	K5, K6, K41

Month 3

TCB: Wireless communications	K41
PAG: Telecommunications networks	K6, K11, K37, K40, K41, K42

Month 4

TQA: Introduction to wide area networks	K37, K42, K44
TQF: Internet protocols	K37, K40

Month 5

TQG: IP networks	K37, K40
EDE: Network testing and fault-finding or	K3, K9, K43
FPB: Telecoms testing and fault-finding	

Month 6

EBA: Ethernet fundamentals	K37
EBB: Structured cabling	K39

Month 7

NSA: Network services	K1
EBC: Ethernet networks	K11, K37, K38, K40, K44
TCG: Telecommunications systems security	K10, K44

Learners are given access to the above courses throughout their apprenticeships. This will allow them to revise the content when necessary to reinforce their knowledge gained on the job and prior to their end point assessment.

Information Communication Technician (Level 3) - Option 3 - Digital Communications Technician Knowledge objectives

Core elements:

- K1 Approaches to back up and storage solutions
- K2 Basic elements of technical documentation and its interpretation
- K3 Principles of root cause problem solving using fault diagnostics for troubleshooting
- K4 Principles of basic network addressing for example binary
- K5 Basic awareness of the principles of cloud and cloud-based services
- K6 Fundamental principles of virtual networks and components
- K7 Principles of cultural awareness and how diversity impacts on delivery of support tasks
- K8 Methods of communication including level of technical terminology to use to technical and non-technical stakeholders
- K9 Different types of maintenance and preventative measures to reduce the incidence of faults
- K10 Key principles of Security including the role of People, Product and Process in secure systems for example access and encryption requirements
- K11 Fundamentals of physical networks and components
- K12 Approaches to documenting tasks, findings, actions taken and outcome for example, use of task tracking and ticketing systems
- K13 Basic awareness of legislation in relation to disposal of waste materials for example Waste Electronic and Electrical regulations (WEEE)

Digital Communications Technician elements:

- K24 Principles of OSI layers
- K37 Basic elements of network communication architectures for example, hardware, software, protocols and connection mediums.
- K38 Awareness of the purpose of firewalls
- K39 Different types of connectivity and cabling for example physical and remote
- K40 Awareness of network protocols
- K41 The purpose of digital communications technologies for example, hardware, virtual and cellular technologies
- K42 Main factors affecting network performance including faults and error control
- K43 Principles of digital test and diagnostic equipment usage
- K44 Basic principles of VPN and Remote Access Security for example transmission technologies

PTT course title	Objectives covered
PAA: Analogue and digital signals * #	K4, K37
PAB: Signal impairments * #	K42
PAC: Transmission fundamentals * #	K39
PAE: Data communications principles * #	K24, K37, K40
TFA: Telephony and data services * #	K5, K6, K41
PAG: Telecommunications networks #	K6, K11, K37, K40, K41, K42
TCB: Wireless communications	K41
TQA: Introduction to wide area networks * #	K37, K42, K44
TQF: Internet protocols * #	K37, K40
TQG: IP networks * #	K37, K40
EDE: Network testing and fault-finding * or FPB: Telecoms testing and fault-finding	K3, K9, K43
EBA: Ethernet fundamentals *	K37
EBC: Ethernet networks *	K11, K37, K38, K40, K44
EBB: Structured cabling *	K39
TCG: Telecommunications systems security *	K10, K44
NSA: Network services	K1

* Forms part of the PTT Level 3 Certificate in Unified Communications

Forms part of the PTT Level 3 Award in Principles of Telecommunications