Access to Higher Education Unit

This unit forms part of an Access to HE Diploma. If delivering the graded version of this unit, please refer to the Provider Handbook for details on grading descriptors and the application of these across units within your programme.

Unit Title: Networks and Communication Protocols

Graded Unit Reference Number: GA33COM07

Ungraded Unit Reference Number: UA33COM07

Module: Computing

Level: 3

Credit Value: 3

Minimum Guided Learning Hours: 30

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand the nature and applications of different types of network	1.1 Explain the advantages and potential problems associated with sharing resources (e.g. printers and shared storage) using a network
	1.2 Relate network types to their uses; distinguish wide area (WAN) and local area networks (LAN), intranets and the Internet
	1.3 Identify and describe a range of network topologies, and evaluate their advantages in different situations
	1.4 Evaluate the advantages and disadvantages of wired and wireless systems for local area networks
	1.5 Describe the difference between peer-to-peer and server-based networking and evaluate their use in different situations
2. Understand the importance of communication protocols	2.1 Explain the terms bit rate, baud rate baseband and broadband and explain how these affect the speed of communication in networks
	2.2 Describe asynchronous data transmission and explain the use of start and stop bits, odd and even parity

		2.3	Explain the importance of network protocols including handshaking
3.	Understand the need for network security	3.1	Explain the terms computer viruses, hacking and phishing
		3.2	Evaluate the importance and usefulness of firewalls and digital certificates
		3.3	Evaluate the risks to individuals and organisations of malicious software and the potential effectiveness of anti-virus software