# Access to H.E.
# National Programme Unit

**openawards**

| Unit Title: | Networks and Communication Protocols | | |
|---|---|---|---|
| **Graded Unit Code:** | GA33COM07 | **Ungraded Unit Code:** | UA33COM07 |
| **Pathway(s):** | Computing<br>Hospitality, Leisure and Tourism | | |
| **Module(s):** | Computing | | |
| **Level:** | 3 | **Credit Value:** | 3 |
| **Valid from:** | 1st August 2014 | **Valid to:** | 31st July 2024 |

**The following QAA grade descriptors must be applied if you are delivering the graded version of this unit:**

| 1 | Understanding of the subject |
|---|---|
| 2 | Application of knowledge |
| 3 | Application of skill |
| 7 | Quality |

| LEARNING OUTCOMES | ASSESSMENT CRITERIA |
|---|---|
| **The learner will:** | **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 |

| LEARNING OUTCOMES | ASSESSMENT CRITERIA | |
|---|---|---|
| **The learner will:** | **The learner can:** | |
| | 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 |