

## 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:** Computer Systems Architecture

**Graded Unit Reference Number:** GA33COM01

**Ungraded Unit Reference Number:** UA33COM01

**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 relationships between the hardware components of a typical computer system	1.1 Explain the relationships between the CPU, main memory, I/O devices and the system bus in a computer system
	1.2 Describe the fetch-execute cycle and the roles of the Arithmetic Logic Unit, Control Unit, Clock and Registers
	1.3 Explain the importance and use of cache and virtual memory in a computer system
	1.4 Explain the need for secondary storage in a computer system and assess the suitability of different types of secondary storage in different situations
2. Understand the nature and role of software in the operation of a computer system	2.1 Describe in general terms the stored program concept and distinguish between von Neumann and Harvard architectures
	2.2 Distinguish the roles of different types of software including BIOS, operating systems, drivers, utilities and application programs

3. Understand the uses of ports and of input and output devices	3.1 Explain the need for input and output devices and peripheral hardware in computer systems and give examples and their uses
	3.2 Compare the purpose, function and speed of a variety of ports including COM, Parallel, LAN and USB
	3.3 Evaluate the advantages and disadvantages of “plug-and-play” technology