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: Principles of Computer Programming

Graded Unit Reference Number: GA33COM05

Ungraded Unit Reference Number: UA33COM05

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 relationship between data and variables in a computer program	1.1	Define the terms data, constant, variable and data type and explain the relationship between them
		1.2	Declare variables and constants using appropriate data types including integer, real, character, string and Boolean types
		1.3	Use program statements to enter and validate data and to output results
		1.4	Declare and use one-dimensional and two-dimensional arrays
2.	Understand the use of common inbuilt program functions, standard operators, syntax and algorithms	2.1	Use a range of built-in programming functions and operators to manipulate data variables, e.g. concatenation, arithmetic, ordering and test for equality
		2.2	Identify and correct syntax errors in programming statements
		2.3	Select algorithms appropriately to manipulate data, e.g. assignment, selection, sequence, repetition, etc
3.	Solve problems using straightforward computer programs	3.1	Use pseudo code to plan straightforward computer programs

	3.2	Write straightforward programs to solve a range of straightforward problems
	3.3	Compile, run and debug programs
	3.4	Identify appropriate data to test program functionality and modify programs as appropriate