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: Matrices

Graded Unit Reference Number: GA33MTH15

Ungraded Unit Reference Number: UA33MTH15

Module: Mathematics; Maths for Computing

Level: Three (3)

Credit Value: Three (3)

Minimum Guided Learning Hours: 30

Learning Outcome (The Learner will):		Assessment Criterion (The Learner can):	
1.	Understand the basic properties of matrices as mathematical objects	1.1	For given matrices state the matrix order
		1.2	Identify the values of specified elements in a matrix
		1.3	Find the determinant for a 2 x 2 matrix and a 3 x 3 matrix
		1.4	Find the transpose A^T of a matrix A
2.	Understand the rules of matrix algebra	2.1	Perform matrix addition and subtraction for 2 x 1 and 2 x 2 matrices
		2.2	Calculate the inverse of 2 x 2 and 3 x 3 matrices
		2.3	Multiply a 2 x 2 matrix by a scalar quantity
		2.4	Multiply a 2 x 2 matrix by a 2 x 2 matrix
3.	Apply matrix algebra to solve examples of simultaneous equations	3.1	Express linear simultaneous equations in matrix form
		3.2	Solve linear simultaneous equations using matrix algebra
4.	Find eigenvalues and eigenvectors for matrices	4.1	Calculate eigenvalues and eigenvectors for 2 x 2 and 3 x 3 matrices