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: Algebra

Graded Unit Reference Number: GA33MTH05

Ungraded Unit Reference Number: UA33MTH05

Module: Mathematics

Level: Three (3)

Credit Value: Three (3)

Minimum Guided Learning Hours: 30

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Recognise quadratic functions and their properties and use methods to find solutions to quadratic functions	1.1 Sketch the graph of a simple quadratic function and identify the vertex and line of symmetry
	1.2 Identify whether a quadratic function has equal roots, distinct real roots or no real roots
	1.3 Factorise a quadratic function to find its roots
	1.4 Use the method of completing the square to solve a quadratic equation
	1.5 Use the formula method to solve a quadratic equation
2. Solve simultaneous equations	2.1 Solve simultaneous linear equations with three unknowns
	2.2 Solve pairs of equations where one is linear and the other is quadratic
3. Interpret and manipulate equations using f(x) notation	3.1 Use the f(x) notation to define a function and express its domain or range
	3.2 Solve problems involving composite functions

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	3.3	Use appropriate notation to represent inverse functions
	3.4	Represent functions and their inverse functions graphically
4. Understand methods use to simplify and solve polynomial expressions	4.1	Simplify polynomial expressions by expanding brackets and collecting terms
	4.2	Factorise polynomial expressions using the Factor Theorem and Remainder Theorem
	4.3	Use any appropriate method to simplify expressions involving algebraic division
	4.4	Sketch graphs to solve polynomial inequalities

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