Access to H.E.
National Programme Unit

Unit Title	Algebra		
Graded Unit Code:	GA33MTH05	Ungraded Unit Code:	UA33MTH05
Pathway(s)	Science and Engineering Construction and the Built Environment		
Module(s)	Mathematics		
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
3	Application of skills
7	Quality

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**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

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