Access to H.E.
National Programme Unit

openawards

Unit Title	Complex Numbers		
Graded Unit Code:	GA33MTH01	Ungraded Unit Code:	UA33MTH01
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. Understand and manipulate complex numbers	1.1	Explain the nature of complex numbers in terms of their real and imaginary parts
	1.2	Add, subtract, multiply and divide using complex numbers
	1.3	Solve quadratic equations with complex roots
2 Understand the graphical representation of complex numbers	2.1	Represent complex numbers using Argand diagrams
	2.2	Express complex numbers using Polar and Cartesian coordinates
	2.3	Find the modulus, argument and conjugate of a complex number and explain their geometric significance
	2.4	Solve simple problems using $[r, \theta]$.

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
	2.5 Use de Moivre's theorem to expand trigonometric functions e.g. cos3x
	2.6 Use de Moivre's theorem to find the roots of complex numbers