Access to H.E. National Programme Unit



Unit Title:	Vectors					
Graded Unit Code:	GA33MTH12	Ungraded Unit Code:	UA33MTH12			
Pathway(s):	Science and Engineering Construction and the Built Environment					
Module(s):	Mathematics					
Level:	3	Credit Value:	3			
Valid from:	1 st August 2014	Valid to:	31 st 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 the nature of vectors	1.1 Define the terms scalar and vector and give examples of each type	
	1.2 Represent line segments as vectors and use appropriate notation	
	1.3 Define position and free vectors	
2. Know how to manipulate vectors	2.1 Use Cartesian notation	
	2.2 Add and subtract, multiply by scalars and interpret the results	
	2.3 Calculate unit vectors	
Apply vectors to the geometry of a straight line	3.1 Formulate the equation of a line in vector notation	
	3.2 Determine whether three points are collinear	

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4.	Use scalar products to solve problems		Use scalar products to: calculate the equation of perpendicular lines from appropriate information
		4.2	find the angle between two lines at the point of intersection and
		4.3	resolve vectors in a given direction
5.	Apply vectors to problems involving displacement, velocities and forces	5.1	Use vectors to solve problems involving displacement, velocities and forces