

Open Awards Qualification Unit



This unit forms part of a regulated qualification. Click [here](#) to view qualifications.

1 Unit Details

Unit Title:	Applying Mathematics in Engineering
Unit Reference Number:	J/615/9857
Level:	Level 2
Credit Value:	5
Minimum GLH:	45

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand and perform analytical methods to engineering mathematical applications	1.1 Perform calculations to determine the areas of: <ul style="list-style-type: none"> a) Basic shapes b) Compound shapes
	1.2 Perform calculations to determine the value of angles in a triangle
	1.3 Interpret straight line graphs using given data
	1.4 Perform calculations to determine the surface areas of regular shaped solids
	1.5 Apply Pythagoras' Theorem to right-angled triangle problems
	1.6 Describe tolerance in terms of limits of size
	1.7 Apply prefix symbols appropriately
	1.8 Apply appropriate degree of accuracy to express numbers
2. Understand and perform analytical methods to engineering science applications	2.1 Perform calculations to determine the value of a force
	2.2 For a chosen machine perform calculations to determine <ul style="list-style-type: none"> a) power used b) energy used c) efficiency of a machine

2.3 For a chosen material perform calculations to determine

- a) relative density
- b) turning moment of a force
- c) material strength

2.4 Apply prefix symbols appropriately

