

## QUANTITATIVE METHODS

Unit Reference Number	L/617/3291
Unit Title	Quantitative Methods
Unit Level	4
Number of Credits	20
Total Qualification Time	200
Mandatory / Optional	Mandatory
SSAs	15.1 Accounting and finance
Unit Grading Structure	Pass

### Unit Aims

The aim of the unit is to develop learners' skills in using quantitative methods including representing information to inform decision making in an organisation, and using statistical methods to provide meaningful financial and accounting information, applying these skills to a real world case study.

### Learning Outcomes and Assessment Criteria

Learning Outcomes- The learner will:	Assessment Criteria- The learner can:
1. Be able to use numerical techniques in accounting.	1.1 Use numerical techniques in accounting 1.2 Solve equations using numerical techniques, roots or logarithms. 1.3 Determine the equation of a straight line.
2. Be able to construct and use graphs, charts and diagrams for informed decision making.	2.1 Draw charts and diagrams derived from tabular accounting data. 2.2 Plot graphs, applying the general rules and principles of graphical construction. 2.3 Plot and interpret mathematical graphs of accounting data.
3. Be able to apply statistical methods to provide financial and accounting information.	3.1 Distinguish between different types of data. 3.2 Represent and interpret business data. 3.3 Determine and interpret summary statistics.

### Indicative content

#### Learning Outcome 1

**Numerical techniques:** application of the rules of numeracy to whole numbers, fractions and decimals; comparing numbers; estimating; percentages; approximating data using rounding; significant figures; interpret, transpose and evaluate formulae; simple financial transactions involving purchases, wages, taxation, discounts; simple and compound interest; depreciation; foreign currency conversion

**Equations:** linear and simultaneous equations; quadratic equations; roots and powers; logarithms and exponential values.

**Equation of a straight line:** using two points to find equation of a straight line; using one point and gradient; determine equation.

## **Learning Outcome 2**

**Draw charts and diagrams:** Methods of data presentation; charts and diagrams derived from tabular data.

**Draw graphs:** mathematical graphs; graphing quadratic, exponential and logarithmic equations; identifying dependent/independent variables.

**Interpret graphs:** interpretation of graphical data in business; identifying misrepresentations of graphical data; use graphical information to support decision making.

## **Learning Outcome 3**

**Different types of data:** quantitative and qualitative data; discrete and continuous data; cumulative data.

**Represent and interpret data:** represent and interpret data using appropriate formats (histograms, cumulative frequency curves).

**Determine and interpret statistics:** measures of central tendency (e.g. mean, mode and median) and their correct selection and application; calculation of averages for different types of data/data sets; measures of dispersion; limitations of statistics; identifying misuse of statistics.

## **Assessment**

To achieve a 'pass' for this unit, learners must provide evidence to demonstrate that they have fulfilled all the learning outcomes and meet the standards specified by all assessment criteria.

<b>Learning Outcomes to be met</b>	<b>Assessment criteria to be covered</b>	<b>Type of assessment</b>	<b>Summary of quantity/quality</b>
LO1, LO2, LO3	All ACs	Case study	2500

## **Indicative Reading List**

Dewhurst, F. (2006). *Quantitative methods for Business and Management*; (2<sup>nd</sup> edition). McGraw-Hill Education

McGraw-Hill Morris, C., (2012). *Quantitative Approaches in Business Studies*. 8th Ed., Prentice Hall