Access to Higher Education Unit

This unit forms part of an Access to HE Diploma. If delivering the graded version of this unit, please refer to the Provider Handbook for details on grading descriptors and the application of these across units within your programme.

Unit Title: Statistical Methods and Distributions

Graded Unit Reference Number: GA36MTH31

Ungraded Unit Reference Number: UA36MTH31

Module: Mathematics

Level: Three (3)

Credit Value: Six (6)

Minimum Guided Learning Hours: 60

Units barred for selection against this unit:

- Statistical Methods' (GA33MT19)

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand statistical methods	1.1 Calculate estimates of the median and quartiles using linear interpolation
	1.2 Calculate and interpret variance and standard deviation for ungrouped and grouped data
	1.3 Calculate and interpret Spearman's rank and Pearson's product moment correlation coefficients
	1.4 Calculate and interpret linear regression equations
2. Understand random variables	2.1 Explain key terms relating to discrete and continuous random variables
3. Understand standard statistical distributions	3.1 Use the binomial theorem to find probabilities
	3.2 Solve problems using the binomial cumulative distribution function

	3.3	Use standardisation of a normally distributed random variable to solve problems
	3.4	Solve problems involving the normal distribution, including finding the mean and standard deviation
	3.5	Solve problems involving the Poisson distribution
4. Understand hypothesis testing	4.1	Apply the five-step hypothesis testing procedure
	4.2	Appropriately select a one-tailed or two-tailed test
	4.3	Perform a hypothesis test for the proportion of a binomial distribution and interpret the results
	4.4	Perform a hypothesis test on the mean of a normal distribution and interpret the results
	4.5	Perform a chi-squared goodness of fit test and interpret the results
	4.6	Perform a non-parametric hypothesis test and interpret the results