MODULE SPECIFICATION

Part 1: Information			
Module Title	Managing Numerical Data		
Module Code	UZYRGT-15-0	Level	Level 3
For implementation from	2020-21		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Health & Applied Sciences	Field	Allied Health Professions
Department	HAS Dept of Allied Health Professions		
Module Type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co-requisites	None		
Module Entry Requirements	None		
PSRB Requirements	None		

Part 2: Description

Educational Aims: See Learning Outcomes.

Outline Syllabus: Number:

Calculations including ratio, percentages, decimals and fractions

The results of calculations

Place value and round numbers to a stated accuracy

Appropriate levels of accuracy to express an answer

Metric and imperial system of units

Numerical values into simple formulae

Addition, subtraction, multiplication and division using algebraic terms

Graphs:

Interpret and sketch graphs

Handling Data:

Organise discrete and continuous data into groups and classifications

Methods of data collection and bias

Charts and graphs, e.g. bar charts, pie charts, line graphs, scatter graphs and cumulative frequency graphs

Charts and graphs, explaining the main features of the data represented

Mean, median and mode from lists, ungrouped and grouped frequency tables

Range and interquartile range

Probability of a single event and two events occurring

Probability and relative frequency of an event occurring

Shape, Space and Measures:

Triangles, quadrilaterals and other polygons

3D shapes and recognise simple nets

Angles in 2D shapes and deduce size using e.g. angles in a straight line, angles around a point and opposite, alternate and corresponding angles

Perimeters, areas, surface areas and volumes of simple shapes and solids

Scale drawings and calculate measurements using similar shapes

Reflections, translations, enlargements and rotations

Pythagoras' theorem and sin, cos, tan in right-angled triangles

Cosine and sine rule in non-right angled triangles

Further Algebra:

Simple linear equations

Change the subject of a formula

Simplify expressions including using factorisation and the rules of indices

Graphs of algebraic functions

Formula $y = mx + c$ to calculate the values of m and c from a graph or table of data

Simultaneous equations containing two variables

Quadratic equations of the form $x^2 + ax + b = 0$

Algebraic equations using a 'trial and improvement' method

Teaching and Learning Methods: Contact time for the module is 100 hours.

This subject requires intensive coaching for some students often in one to one or small group situations.

A variety of Learning and Teaching methods will be used which may include face to face and online:
lectures, seminars, workshops and formative mock papers and feedback.

Part 3: Assessment

Assessment strategy:

Component A: 1 x 1.5 hour exam

Component B: 1 x 1.5 hour exam

This is informed by evidence from GCSE mathematics (this is the level taught on this programme) which indicates that 'coursework' does not fully assess mathematical skills and does not represent a fair reflection of students' ability in this subject. Two 1.5 hour exams allow functional skills assessment in the form of evidence of mathematical development and application.

Regular formative assessment will take place throughout the module delivery to enable students to gauge their progress and learning to date.

First Sit Components	**Final Assessment**	**Element weighting**	**Description**
Examination - Component B	✓	50 %	Exam (1.5 hour)
Examination - Component A		50 %	Exam (1.5 hour)
Resit Components	**Final Assessment**	**Element weighting**	**Description**
Examination - Component A		50 %	Exam (1.5 hour)
Examination - Component B	✓	50 %	Exam (1.5 hour)

Part 4: Teaching and Learning Methods

Learning Outcomes

On successful completion of this module students will achieve the following learning outcomes:

Module Learning Outcomes	Reference
Demonstrate an understanding of mathematical language and representation	MO1
Demonstrate an understanding of Geometry, Trigonometry and Algebra	MO2
Collect, organise, represent and interpret data	MO3
Interpret graphical information	MO4
Perform mathematical calculations and solve mathematical problems	MO5
Utilise and apply a range of mathematical techniques to solve problems	MO6
Organise and clearly present relevant information to suit purpose	MO7
Demonstrate and apply a range of numeracy skills accurately and appropriately	MO8

Contact Hours

Independent Study Hours:	
Independent study/self-guided study	50
Total Independent Study Hours:	50
Scheduled Learning and Teaching Hours:	
Face-to-face learning	100
Total Scheduled Learning and Teaching Hours:	100
Hours to be allocated	150
Allocated Hours	150

Reading List

The reading list for this module can be accessed via the following link:

https://uwe.rl.talis.com/index.html

Part 5: Contributes Towards

This module contributes towards the following programmes of study: