

Module Title:	Applied Mathematics
Language of Instruction:	English
Credits:	5
NFQ Level:	6
Module Delivered In	No Programmes
Teaching & Learning Strategies:	Lectures Tutorials & Project work Demonstrations Hands on application Private study Blackboard
Module Aim:	The aims of this Module are : (1) To extend further the applied mathematical ability of learners (2) To apply their skills to calculating area, interpreting graphs and charts

Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	use a scientific calculator efficiently
LO2	manipulate algebraic formulae
LO3	apply mathematical relationships to the solution of right-angled and non-right-angled triangles and to calculate the areas of triangles
LO4	perform calculations involving percentages, ratios and scales
LO5	solve linear and quadratic functions by mathematical and graphical means
LO6	plot standard statistical graphs and calculate central tendency and dispersion for a set of statistics

Pre-requisite learning
Module Recommendations <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>
No recommendations listed
Incompatible Modules <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>
No requirements listed

Module Content & Assessment

Indicative Content

Computation (20 hours)

(a) Basic Calculator functions and Basic Mathematical Rules (b) Accuracy and Precision (c) Indices and Powers (d) Transposition of Formulae (e) Perimeter, Area & Volume of Regular and Irregular Shapes (f) Basic Algebra (g) Simple & Compound Interest (h) Principal and Amount

Equations (15 hours)

(a) Solution to Linear equations by Mathematical and Graphical means (b) Solution to Quadratic equations by Mathematical and Graphical means

Trigonometry (15 hours)

(a) Solution of Right Angled and Non-Right Angled Triangles (b) Unit Circle (c) Sine, Cosine and Pythagoras Rules for the Solution of Triangles (d) Areas of Triangles

Statistics (10 hours)

(a) Statistical Graphs (Bar Chart, Pie-Chart, Ogive, Histogram) (b) Calculation of Central Tendency and Dispersion (Mean, Mode and Median)

Assessment Breakdown	%
Continuous Assessment	40.00%
End of Module Formal Examination	60.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Examination	4 - 6 Classroom Assessments	1,2,3,4,5,6	40.00	n/a

No Project

No Practical

End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	No Description	1,2,3,4,5,6	60.00	End-of-Semester

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	30 Weeks per Stage	2.00
Estimated Learner Hours	30 Weeks per Stage	3.00
Total Hours		150.00

