Institute of Technology Tallaght
Institiúid Teicneolaíochta Tamhlacht

MATH H1025: Mathematics 1
Extra Header Data

Module Delivered in

Programme Code	Programme	Semester	Delivery
TA_SASCI_D	Bachelor of Science in Bioanalysis or Chemical Analysis	1	Mandatory

Short Title:	Mathematics 1 APPROVED
Full Title:	Mathematics 1

Module Code:	MATH H1025	**NFQ Level:**	6	**ECTS Credits:**	5

Reviewed By:	JOHN BEHAN

Description:	To provide the student with knowledge and skills in Mathematics relevant to a course of study in science.

Learning Outcomes:

On successful completion of this module the learner will be able to

1. Apply essential algebraic techniques in the manipulation of scientific formulas and the solution of basic equations.
2. Understand and apply log and exponential functions in scientific applications
3. Appreciate fundamental notions of geometry and trigonometry with applications to the solution of arbitrary triangles and equations of lines .
4. Use graphical and geometric ideas to find parameters of experimental laws from a given set of data

Institute of Technology Tallaght
Institiúid Teicneolaíochta Tamhlacht

MATH H1025: Mathematics 1
Extra Header Data

Module Content & Assessment

Content (The percentage workload breakdown is inidcative and subject to change)
n/a Scientific Notation; Errors and accuracy; Significant figures; Conversion of Units.
n/a Fundamental algebraic operations and rules of algebra.
n/a Factoring; Simplifying fractions; Transposition of Formulae
n/a Concept of a function; Polynomial functions. Indices and logarithms; The exponential function and natural logs; Composition of functions
n/a Applications of logs to pH; Linear, log and exponential equations in one unknown variable
n/a Systems of linear equations; Quadratic equations; Simultaneous non-linear equations
n/a Applications of equilibrium concentrations
n/a Trigonometric ratios; Sine and Cosine rules; Solution to right angled and non-right angled triangles
n/a Cartesian co-ordinates ; Distance between points; Equation of a line; Parallel and perpendicular lines.
n/a Reduction of non-linear equations to linear form; Verification of experimental laws from graphs.

Assessment Breakdown	%
Course Work	30%
End of Semester Formal Examination	70%

	Outcome addressed	*% of total*	*Assessment Date*
Formal End-of-Semester Examination	None	70%	Semester End

Coursework Breakdown				
Type	*Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Continuous Assessment	n/a		30	n/a

IT Tallaght reserves the right to alter the nature and timings of assessment

MATH H1025: Mathematics 1
Extra Header Data

Module Workload & Resources

This course has no full time workload.

Resources
Required Book Resources
Jon Curwin and Roger Slater 2004, *Quantitative Methods*, 1st ed Ed., Thomson Publishing Services.co.uk 1-86152-991-0 **LR Mustoe & MDJ Barry 1998, *Foundation Mathematics*, Wiley**
Recommended Book Resources
M O'Connor 1999, *Maths Now*, Educational Company of Ireland