

Module code	SM-1401		
Module Title	Basic Calculus		
Degree/Diploma	Undergraduate GenNEXT Bachelor degree		
Type of Module	Breadth		
Modular Credits	4	Total student Workload	10 hours/week
		Contact hours	4 hours/week
Prerequisite	None		
Anti-requisite	None		
Aims			
<p>This module introduces students with no prior knowledge of Mathematics beyond O-level to the basic and simple mathematical manipulations (algebra, functions and graphical representation, Trigonometry, differentiation and integration). This is useful to assist students with no or little science background to understand the concept of mathematics, to exercise the logical thinking that involve in the solving processes and manipulation skill involve in Mathematics and to understand the use of mathematics to other disciplines.</p>			
Learning Outcomes			
<i>On successful completion of this module, a student will be expected to be able to:</i>			
Lower order :	30%	<ul style="list-style-type: none"> - familiarised with basic algebraic manipulations - Understanding the relationship of functions and graph 	
Middle order :	60%	<ul style="list-style-type: none"> - understand the various types of mathematical equation and the methodology used - skilful in identifying mathematical problems and thus solving them - understand the applications of Mathematics to other discipline. 	
Higher order:	10%	<ul style="list-style-type: none"> - able to use the software <i>Mathematica</i> to solve mathematics 	
Module Contents			
<ul style="list-style-type: none"> - Functions: interpreting and graphical representation of functions - Algebraic manipulations - linear equations - Graphic Plots and their properties - Quadratic Equations - Trigonometry - Exponential and Logarithmic functions - Differentiation, Integration and their applications 			
Assessment	Formative assessment	Tutorial and feedback.	
	Summative assessment	Examination: 60% Coursework: 40% - 2 class tests (40%)	