

Faculty	Natural Sciences		
Home Department	Mathematics and Applied Mathematics		
Module Topic	Applied Mathematics		
Generic Module Name	Applied Mathematics 123		
Alpha-numeric Code	APM123		
NQF Level	5		
NQF Credit Value	15		
Duration	Semester		
Proposed semester to be offered.	Second Semester		
Programmes in which the module will be offered	BSc Mathematical & Statistical Science (3227) BSc Physical Science (3233), BSc Computer Science (3023)		
Year level	1		
Main Outcomes	<p>On completion of this module students should be able to:</p> <ul style="list-style-type: none"> • Use MATLAB to support their basic understanding of topics covered in first year mathematics. • Understand how to simulate basic functions using MATLAB. • Have an essential understanding of Ordinary Differential Equations (odes) and the physical applications thereof. 		
Main Content	<ul style="list-style-type: none"> • Introduction to using MATLAB for numerical methods, simulations and modeling. • Solving 1st order Ordinary Differential Equations by using graphical and numerical approaches. • Physical applications of 1st order Ordinary Differential Equations. 		
Pre-requisite modules	None		
Co-requisite modules	MAT105 or MAT104 or MAM152		
Prohibited module Combination	None		
Breakdown of Learning Time	Hours	Time-table Requirement per week	Other teaching modes that does not require time-table
<i>Contact with lecturer / tutor:</i>	39	Lectures p.w.	3
<i>Assignments & tasks:</i>	20	Practicals p.w.	2
<i>Practicals:</i>	26	Tutorials p.w.	1
<i>Assessments</i>	30		
<i>Selfstudy</i>	22		
<i>Other:</i>	13		
Total Learning Time	150		
Method of Student Assessment	Continuous Assessment (CA): 100% Final Assessment (FA): 0%		
Assessment Module type	Continuous Assessment (CA)		