

Unit Title:	Calculus
Unit Level:	Three
Unit Credit Value:	6
Unit Code:	WNI473
Unit Type:	Academic Subject Content
Unit Review Date:	31/12/2028
Graded / Ungraded:	Graded

This unit has 3 learning outcomes:

Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Know how to differentiate	1.1 Use standard derivatives ($\sin x$, $\cos x$, $\tan x$, e^x , $\ln x$) to solve problems. 1.2 Differentiate composite functions (chain rule). 1.3 Differentiate products and quotients. 1.4 Differentiate simple functions defined implicitly. 1.5 Apply a variety of differentiation techniques to solve problems modelling real life situations.
2. Know how to integrate.	2.1 Use standard integrals ($\sin x$, $\cos x$, $\tan x$, e^x , $1/x$) to solve problems. 2.2 Integrate simple cases by inspection or substitution. 2.3 Integrate by parts. 2.4 Apply integration to a variety of problems including evaluating volumes of revolution.
3. Know about differential equations.	3.1 Form simple differential equations from a worded context such as instances of growth and decay. 3.2 Find general and particular solutions of simple first order differential equations with variables separable.

Assessment (Graded)

1. Meets assessment criteria	At least a Pass
2. Further grading	
▪ Meets assessment criteria but not merit grading standards	Pass
▪ Meets assessment criteria and merit but not distinction grading standards	Merit
▪ Meets assessment criteria and distinction grading standards	Distinction