

Faculty	Natural Sciences			
Home Department	Chemistry			
Module Topic	Physical and Analytical Chemistry			
Generic Module Name	Chemistry 212			
Alpha-numeric Code	CHM212			
NQF Level	6			
NQF Credit Value	20			
Duration	Semester			
Proposed semester to be offered	Second Semester			
Programmes in which the module will be offered	BSc (Biotechnology) (3211, 3007); BSc (Chemical Science) (3019, 3019); BSc (Physical Science) (3233, 3120))			
Year level	6			
Main Outcomes	<p>On completion of this module students should be able to:</p> <ul style="list-style-type: none"> • Interpret and illustrate the practice of wet analytical techniques. • Mathematically translate and explain the principle, theories and laws governing simple chemical systems. 			
Main Content	<ul style="list-style-type: none"> • Gravimetry, titrimetric methods for acids/bases, redox titrations, complexometric titrations, precipitation, pH measurements, kinetic molecular theory, van der waals equation for real gases, laws of thermodynamics, chemical kinetics, theory of elementary reactions. 			
Pre-requisite modules	CHE114 and CHM124 or CHE116 and CHM126.			
Co-requisite modules	None			
Prohibited module Combination	None			
Breakdown of Learning Time	Hours	Timetable Requirement per week		Other teaching modes that does not require time-table
<i>Contact with lecturer / tutor:</i>	56	<i>Lectures p.w.</i>	3	
<i>Assignments & tasks:</i>	42	<i>Practicals p.w.</i>	1	
<i>Practicals:</i>	42	<i>Tutorials p.w.</i>	1	
<i>Tutorials:</i>	0			
<i>Tests & Examinations:</i>	12			
<i>Selfstudy:</i>	48			
<i>Other:</i>	0			
Total Learning Time	200			
Methods of Student Assessment	Continuous Assessment (CA): 60% Final Assessment (FA): 40%			
Assessment Module type	Continuous and Final Assessment (CFA)			