Module code	SG-2203			
Module Title	Geochemistry			
Degree/Diploma	Bachelor of Science (Geology)			
Type of Module	Major Core			
Modular Credits	4	**Total student workload**	10	hours/week
		Contact hours	6	hours/week
Prerequisite	None			
Anti-requisite	SG-4303 Geochemistry			

Aims

This module provides students with an introductory understanding of the chemistry and chemical evolution of Earth systems and their associated interactions. The module focuses on practical and theoretical geochemical aspects and principles and how they are used to study Earth Sciences. The origin and evolution of Earth through nuclear and high temperature processes, as well as the natural and anthropogenic impact on the Earth systems will be presented.

Learning Outcomes:

On successful completion of this module, a student will be expected to be able to:

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On successful completion of this module, a student will be expected to be able to:

Lower order :	30%	- understand the basic principles of Earth's chemical systems - understand the fundaments of modern Geochemical methods
Middle order :	50%	- acquaint themselves with the most widely used geochemical research tools - handle geochemical principles, tools and analytical instruments to explain, interpret and predict common processes in Earth Science - interpret and predict common geochemical processes in Earth
Higher order:	20%	- solve applied geochemical problems - work in groups on the organisation, evaluation and interpretation of geochemical data for the characterisation of geological systems

Module Contents

- Properties and classification of elements, nucleosynthesis and Earth's chemical evolution
- Trace elements in igneous processes, geochemical variability of magmas
- Fundamentals of isotopic Geology and Geochronology
- Introduction to organic geochemistry

Assessment	Formative assessment	Practical tests, assignments and feedback
	Summative assessment	Examination: 50%
		Coursework: 50% - 1 individual essay (25%) - 1 individual presentation (25%)