

Module code	SG-2202		
Module Title	Petrography of Igneous and Metamorphic Rocks		
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-2304 Igneous and Metamorphic Rocks		
Aims			
<p>This module is designed to give the students a description and a comprehensive understanding of the formation and the fundamental petrogenetic processes of igneous and metamorphic rocks on Earth, as well as the most important geochemical signatures of the various rock-types. It aims also to provide the systematic classification of igneous and metamorphic rocks, as well as to show their main industrial and environmental applications.</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"> - discriminate igneous, metamorphic and sedimentary rocks - describe and recognise common lithotypes and to recall their names - understand the interior of Earth - know the economic importance of various rock-types 	
Middle order :	50%	<ul style="list-style-type: none"> - classify and identify rock-types and to investigate microtextural features - develop skills in macroscopic and microscopic identification of lithologies - interpret macroscopic and microscopic textures and structures 	
Higher order:	20%	<ul style="list-style-type: none"> - justify the genesis of rocks based on mineralogical and textural criteria - appraise quality of rocks for industrial and environmental applications - work both independently and in groups following protocols 	
Module Contents			
<ul style="list-style-type: none"> - Origin of elements and minerals in the Universe and Earth; origin of meteorites - Rock classification and rock types - Production and properties of magma - Acidic – Intermediate – Mafic – Ultramafic rocks - Types of metamorphism, metamorphic agents, metamorphic zones and metamorphic facies - Study of low, medium and high grade metamorphic rocks and migmatites 			
Assessment	Formative assessment	Practical tests, assignments and feedback	
	Summative assessment	Examination: 50% Coursework: 50% <ul style="list-style-type: none"> - 1 class test (20%) - 1 practical examination (30%) 	