Module code	SG-4311			
Module Title	Ore Deposits and Economic Geology			
Degree/Diploma	Bachelor of Science (Geology)			
Type of Module	Major Option			
Modular Credits	4	**Total student workload**	10	hours/week
		Contact hours	4	hours/week
Prerequisite	None			
Anti-requisite	None			

Aims

The module aims at providing an overview of thedistribution and the principles of the genesis of the main types of metallic and non-metallic mineral deposits. It also provides methods for the identification of common types of metallic minerals, as well as for core logging. The general characteristics of metallic and non-metallic deposits, as well as the notions of of "resource" and "reserve" are presented, too. Strategies for mineral exploration will be explained with case studies.

Learning Outcomes:

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

Lower order :	30%	- understand the important types of ore deposits and their environments - discern the main applications of mineral raw-materials - understand the fundamentals of mineral economics
Middle order :	50%	- identify common ore minerals in hand samples and under the microscope - evaluate the economic potential of a deposit - review, investigate and apply the most widely used methodologies in mineral prospection
Higher order:	20%	- devise strategies for mineral exploration and analyse economic factors - assess environmental impacts from exploitation and extractive activities - work in groups for the evaluation of economic minerals and their reserve estimation

Module Contents

- Geological context of economic minerals and their ore-forming processes
- Characterisation of ore deposits
- Extraction, resources and reserves, investment requirements and feasibility of metallic and non-metallic minerals
- Fundamentals and methods for mineral prospection
- Environmental impacts from the exploitation of economic minerals

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