Module code	SG-2305			
Module Title	Geophysics			
Degree/Diploma	Bachelor of Science (Geology)			
Type of Module	Major Option			
Modular Credits	4	**Total student Workload**	10	hours/week
		Contact hours	6	hours/week
Prerequisite	None			
Anti-requisite	SG-2204 Geophysics			

Aims

The module aims to highlight the importance of Geophysics in the understanding of the global structure of Earth and the exploration for economic minerals, oil and gas. It includes lectures, practicalsand field classes on various methods including the "hands-on" use of Geophysical equipment. Computer interpretation and processing of Geophysical data from various exploration techniques will be introduced, too.

Learning Outcomes

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

Lower order :	30%	- understand the basic principles of different geophysical methods - understand the importance and role of geophysics in the realm of Geology - understand the basic applications of geophysical methods - understand local structural variations and large scale tectonics
Middle order :	50%	- acquire and analyse geophysical data for multidisciplinary studies - interpret geological phenomena and to identify natural resources - interpret qualitative and quantitave Geophysical data - develop skills to link Geology with Geophysics
Higher order:	20%	- visualise local and regional structural styles - to use state-of-art techniques working independently and in groups

Module Contents

- Gravity and the figure of Earth (Geodesy)
- Gravity and magnetic data acquisition, processing and interpretation
- Introduction to seismic waves and theory
- Electrical and electromagnetic methods: Data acquisition, processing and interpretation
- Use of Geophysical equipment in the field and the laboratory

Assessment	Formative assessment	Practical tests, assignments and feedback
	Summative assessment	Examination: 50%
		Coursework: 50% - 7 written assignments (30%) - 1 class test (20%)