

Module code	SG-5104		
Module Title	Petroleum Exploration		
Degree/Diploma	Master of Science in Petroleum Geosciences by Coursework		
Type of Module	Core		
Modular Credits	4	Total student Workload	8 hours/week
		Contact hours	4 hours/week
Prerequisite	None		
Anti-requisite	None		
Aims To provide understanding of geological, geophysical and geochemical methods of exploration and hands on training to gather different data like outcrop, core, well log, mud log, geological cross section, depth map, well correlation, marker bed information, stratigraphic and structural information to find potential petroleum prospect and develop skills to run an exploration project considering economic and technical feasibility.			
Learning Outcomes <i>On successful completion of this module, a student will be able to:</i>			
Lower order:	30%	- recognise the methods of petroleum exploration - describe the basic applications of petroleum exploration	
Middle order:	50%	- review and scrutinise data, tools and methods used in petroleum exploration - perform analysis and interpretation of geological and geophysical data for exploration	
Higher order:	20%	- appraise prospects and uncertainties relative to petroleum exploration - carry out exploration project considering economic and technical feasibility - maintain liaison with different professionals and management people - work in a challenging environment with team spirit	
Module Contents - Formation of sedimentary basins and their classification - Petroleum assessments and prospect evaluation - Introduction to petroleum industry. Exploration tools, methods and concepts: Geological, Geophysical and Geochemical methods - Well design and drilling, drilling hazards and mitigation. Drilling fluids, mud-, core- and welllogging, casing, cementation. Formation pressure, well testing, well completion and case studies			
Assessment	Formative assessment	Weekly discussion, practical tests and feedback	
		Examination: 50%	

	Summative assessment	Coursework: 50% <ul style="list-style-type: none"> - 5 individual written assignments (35%) - 1 class test (15%)
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