

Module code	SG-5301		
Module Title	Petroleum Sedimentology		
Degree/Diploma	Master of Science in Petroleum Geosciences by Coursework		
Type of Module	Option		
Modular Credits	4	Total student Workload	8 hours/week
		Contact hours	4 hours/week
Prerequisite	None		
Anti-requisite	None		
Aims To provide advance understanding of applied sedimentology covering description of different sedimentary rocks, their distribution, texture, compositions, physical properties and paleo depositional environment which in turn will help to correlate potential reservoir rocks across the field and basin for identifying and quantifying hydrocarbon resources.			
Learning Outcomes <i>On successful completion of this module, a student will be able to:</i>			
Lower order:	30%	- recognise the principles of sedimentary geology - evaluate the applications of sedimentary geology	
Middle order:	50%	- analyse sedimentological data concerning the stratigraphy of a petroleum reservoir - perform qualitative /quantitative interpretation of sedimentological data	
Higher order:	20%	- perform an integration for outcrop, core, well log and seismic data - carry out facies modelling for reservoir modeller - communicate with diverse background people relates to exploration and development	
Module Contents - Introduction to the aeolian, fluvial, shallow marine and deep-water depositional environments, with examples of hydrocarbon reservoirs - Use of outcrop analogues - Data collection strategies in the field and subsurface - 3D modelling and geological realism - Reservoir engineering aspects of sedimentology - impact of heterogeneity on fluid flow			
Assessment	Formative assessment	Weekly discussion, practical tests and feedback	
		Examination: 50%	

	Summative assessment	<p>Coursework: 50%</p> <ul style="list-style-type: none"> - 5 individual written assignments (25%) - 1 fieldwork group report (15%) - 1 class test (10%)
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