

Module code	SG-2205		
Module Title	Geological Mapping		
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-2307 Geological Mapping		
Aims			
<p>This module offers students the basic understanding of geological mapping principles, and techniques. It presents the classic ways of geologic mapping, including planning, reconnaissance, strategy, time management and the iterative building and testing hypotheses and interpretations based on observations during fieldwork. Techniques of constructing a base map from satellite and topographic data will be described, too. Students will conduct a 15-day field investigation and geological mapping in areas of Brunei Darussalam.</p>			
Learning Outcomes			
<i>On successful completion of this module, a student will be expected to be able to:</i>			
Lower order :	20%	<ul style="list-style-type: none"> - plan and carry out team field geological mapping activities - make basic observations and measurements and to map an area 	
Middle order :	60%	<ul style="list-style-type: none"> - produce a professional-level geological map - to make stratigraphic logs, cross-sections, and to write a geological report - analyse geological maps using conventional, and digital methods (ArcGIS) - use geological equipment (compasses, GPS, etc.) 	
Higher order:	20%	<ul style="list-style-type: none"> - to visualise the geological and tectonic history of a region - work as a team and to communicate results, observations, interpretations and conclusions in a geological report 	
Module Contents			
<ul style="list-style-type: none"> - Basic Geological Mapping techniques and field mapping, map types and contouring techniques - Nature and identification of rock boundaries and contacts - Geological maps for horizontal and dipping beds - Construction of subsurface Geological cross-sections and petroleum related interpretation - Thickness maps, structural contour maps and petroleum related structures and interpretation - Facies maps as a tool to describe the changes of subsurface facies 			
Assessment	Formative assessment	Practical tests, assignments and feedback	
	Summative assessment	Final Examination: 50% Coursework: 50% <ul style="list-style-type: none"> - 1 individual field assignment (25%) - 1 group project (25%) 	