

Faculty	Natural Sciences		
Home Department	Earth Sciences		
Module Topic	Geology		
Generic Module Name	Geology 312		
Alpha-numeric Code	APG312		
NQF Level	7		
NQF Credit Value	30		
Duration	Semester		
Proposed semester to be offered.	First Semester		
Programmes in which the module will be offered	BSc (Applied Geology) (3214, 3011)		
Year level	3		
Main Outcomes	<p>On completion of this module students should be able to:</p> <ul style="list-style-type: none"> • Describe the history of petroleum evolution • Describe the conditions that must be fulfilled for commercial oil accumulation • Describe different depositional environments • Explain how natural sedimentary systems work and the extent of which it could be managed • Define facies, and explain facies associations and architectural elements • Explain the history of well logging and its applications • Describe the types of wireline logs and formats • Explain logging terminology • Describe the correlation of logs • Explain seismic reflectors • Explain parasequences and marine flooding surfaces • Explain sequence boundaries and system tracts • Explain what is meant by a reservoir 		
Main Content	<ul style="list-style-type: none"> • History of Petroleum evolution • Depositional environments • Facies Analysis • Depositional Systems and System tracts • Well logs and geological applications • Well log correlation and recognition of bounding discontinuities • Seismic exploration techniques • Introduction to reservoir modeling techniques. 		
Pre-requisite modules	APG232 and APG233		
Co-requisite modules	None		
Prohibited module Combination	None		
Breakdown of Learning Time	Hours	Time-table Requirement per week	Other teaching modes that does not require time-table
<i>Contact with lecturer / tutor:</i>	42	Lectures p.w.	3
<i>Assignments & tasks:</i>	60	Practicals p.w.	2
<i>Practicals:</i>	84	Tutorials p.w.	0
<i>Assessments</i>	30	Assignment p.w.	3
<i>Selfstudy</i>	84	Tests & Exercises	3
<i>Other:</i>	0	Self-study	10

Total Learning Time	300			
Method of Student Assessment	Continuous Assessment (CA): 50% Final Assessment (FA): 50%			
Assessment Module type	Continuous and Final Assessment (CFA)			