

<b>Faculty</b>	Natural Sciences		
<b>Home Department</b>	Earth Sciences		
<b>Module Topic</b>	Geotectonics and Fieldwork		
<b>Generic Module Name</b>	Geology 322		
<b>Alpha-numeric Code</b>	<b>APG322</b>		
<b>NQF Level</b>	7		
<b>NQF Credit Value</b>	30		
<b>Duration</b>	Semester		
<b>Proposed semester to be offered.</b>	Second Semester		
<b>Programmes in which the module will be offered</b>	BSc (Applied Geology) (3214, 3011)		
<b>Year level</b>	3		
<b>Main Outcomes</b>	<p>On completion of this module students should be able to:</p> <ul style="list-style-type: none"> <li>• Explain the concepts of global geodynamics, with focus on lithosphere dynamics, including the coupling of interior and surface processes.</li> <li>• Describe methods used for investigating large-scale tectonics.</li> <li>• Explain the impact of tectonic processes on human life (ore deposit formation, geohazards).</li> <li>• Recognise geological processes on a range of scales and appreciate the close relationship between microscale processes and large-scale lithosphere dynamics.</li> <li>• Identify and characterize igneous and metamorphic rocks in the field.</li> <li>• Produce a detailed and comprehensive geological map of an area based on field observations and field measurements.</li> <li>• Take appropriate and comprehensive observations and measurements of geological outcrops in the field.</li> <li>• Produce a comprehensive report on observations and measurements, and interpretations thereof, of rocks mapped in the field.</li> </ul>		
<b>Main Content</b>	<ul style="list-style-type: none"> <li>• Plate tectonics and related large-scale deformation processes affecting the Earth's lithosphere such as compression, extension, strike-slip movements, and the characteristic geological features resulting from these, including orogens, rift zones, mid-ocean ridges, basins, faults or shear zones.</li> <li>• Interaction between magmatism, metamorphism and lithosphere dynamics in plate boundary and plate interior settings.</li> <li>• The observation of, characterization and mapping of igneous and metamorphic rocks in the field.</li> <li>• Recording structural measurements of rocks in the field.</li> <li>• Production of a geological report and geological maps of rock outcrops mapped in the field.</li> </ul>		
<b>Pre-requisite modules</b>	APG231 and APG232 and APG233		
<b>Co-requisite modules</b>	None		
<b>Prohibited module Combination</b>	None		
<b>Breakdown of Learning Time</b>	<b>Hours</b>	<b>Time-table Requirement per week</b>	<b>Other teaching modes that does not require time-table</b>

<i>Contact with lecturer / tutor:</i>	42	Lectures p.w.	3	
<i>Assignments &amp; tasks:</i>	100	Practicals p.w.	1	
<i>Practicals:</i>	16	Tutorials p.w.	0	
<i>Assessments</i>	42			
<i>Selfstudy</i>	100			
<i>Other:</i>	0			
<b>Total Learning Time</b>	<b>300</b>			
<b>Method of Student Assessment</b>	Continuous Assessment (CA): 40% Final Assessment (FA): 60%			
<b>Assessment Module type</b>	Continuous and Final Assessment (CFA)			