

Faculty	Natural Sciences		
Home Department	Earth Sciences		
Module Topic	Earth Processes		
Generic Module Name	Earth Science 121		
Alpha-numeric Code	ESC121		
NQF Level	5		
NQF Credit Value	15		
Duration	Semester		
Proposed semester to be offered	Second Semester		
Programmes in which the module will be offered	BSc (Applied Geology) (3214, 3011); BSc (Biodiversity and Conservation Biology) (3217, 3015); BSc (Environmental & Water Science) (3331, 3027); BSc (Physical Science) (3233)		
Year level	1		
Main Outcomes	<p>On completion of this module students should be able to:</p> <ul style="list-style-type: none"> • Demonstrate a broad understanding of the origins, nature and interactions of Earth system cycles and processes. • Abstract, synthesise and interrogate theories and concepts related to Earth system cycles. • Source, select and synthesise high quality peer-reviewed academic literature. • Plan and write an academic essay that describes and explains an Earth system cycle or process, and that adheres to academic conventions. • Use and interpret electronic spatial data and hard-copy maps to describe and analyse the regional climatic, geological, hydrological and biophysical setting of a study area. 		
Main Content	<ul style="list-style-type: none"> • Introduction to Earth systems and systems theory • Structure of the atmosphere • Global radiation balance and air circulation • Ocean currents and atmospheric interaction • Climate: global to local • Weathering and mass wasting mechanisms • Weathering-climate links • The hydrological cycle • Flows, fluxes and residence times of water in the Earth system • Controls on biome distribution: global to local 		
Pre-requisite modules	None		
Co-requisite modules	None		
Prohibited module Combination	None		
Breakdown of Learning Time	Hours	Timetable Requirement per week	Other teaching modes that does not require time-table
<i>Contact with lecturer / tutor:</i>	48	<i>Lectures p.w.</i>	3
<i>Assignments & tasks:</i>	34	<i>Practicals p.w.</i>	1
<i>Practicals:</i>	36	<i>Tutorials p.w.</i>	1
<i>Assessments:</i>	8		
<i>Selfstudy:</i>	24		
<i>Other:</i>	0		

Total Learning Time	150			
Methods of Student Assessment	Continuous Assessment (CA): 50% Final Assessment (FA): 50%			
Assessment Module type	Continuous and Final Assessment (CFA)			