Faculty	Natural Sciences			
Home Department	Physics and Astronomy			
Module Topic	Environmental Physics and energy sources			
Generic Module Name	Physics 227			
Alpha-numeric Code	**PHY227**			
NQF Level	6			
NQF Credit Value	20			
Duration	Semester			
Proposed semester to be offered.	Second Semester			
Programmes in which the module will be offered	BSc (Physical Science) (3233, 3120) BSc (Chemical Sciences) (3220, 3019) BSc (Computer Science) (3221, 3023) BSc (Mathematics and Statistical Sciences) (3227, 3031) BSc (Environmental & Water Science) (3331, 3027)			
Year level	2			
Main Outcomes	On completion of this module students should be able to: • Describe the environmental issues involved in energy generation • Be knowledgeable on environmental physics and applications. • Present on issues related to the environment. • Perform laboratory work on environmental physics • Explain how energy is generated • Explain and represent environmental issues around energy supply • Do experimental work related to energy issues.			
Main Content	• Introduction to Environmental Science, Environmental Physics, Environment and technology • Traffic and transport, Environment and Industry, Atmospheric Physics, Water in the Environment. • The Energy Future, Electricity Generation, Fossil (coal, liquid, gas), Nuclear, Hydrogen economy, variety hydro-energy. • Experimental laboratory and computational applications			
Pre-requisite modules	(PHY116 and PHY126) or PHY111 or PHY151			
Co-requisite modules	None			
Prohibited module Combination	None except from timetable clash groups			
Breakdown of Learning Time	***Hours***	**Time-table Requirement per week**		**Other teaching modes that does not require time-table**
Contact with lecturer / tutor:	56	Lectures p.w.	3	
Assignments & tasks:	14	Practicals p.w.	0	
Practicals:	56	Tutorials p.w.	2	
Assessments	6			
Selfstudy	52			
Other: Project and Presentation	16			
Total Learning Time	**200**			
Method of Student Assessment	Continuous Assessment (CA): 60% Final Assessment (FA): 40%			
Assessment Module type	Continuous and Final Assessment (CFA)			