

Module code	AW-3308		
Module Title	Introduction to Remote Sensing		
Degree/Diploma	Bachelor of Arts (Geography, Environment and Development Studies)		
Type of Module	Major Option/Breath		
Modular Credits	4	Total student workload	8 hours/week
		Contact hours	4 hours/week
Prerequisite	None		
Anti-requisite	None+		
Aims			
To provide students with the basic knowledge and skills to select and effectively use appropriate satellite and / or aerial images for a range of tasks performed by geoscientists and environmentalists. The module will also provide students with a solid basic foundation for in-depth studies of the advanced topics in Remote Sensing (RS).			
Learning Outcomes:			
<i>On successful completion of this module, a student will be expected to be able to:</i>			
Lower order :	30%	- Understand the basic principles and theories and descriptive approaches on RS and GIS	
Middle order :	40%	- Practical analyses of the various example on image from different environmental issues of the world.	
Higher order:	30%	- Carry out data interpretation and scenario analysis. - Work independently and collaboratively with other students and staffs.	
Module Contents			
<ul style="list-style-type: none"> - Properties of electromagnetic waves and their propagation through the atmosphere; - Concepts of spectral signatures; - Characteristics of passive remote sensing systems; - Introduction to image enhancement and correction techniques, contrast stretch, histogram equalization, geo-rectification, etc; - Unsupervised and supervised image classification; - Ground trothing; - GIS integration of image classification; - Change detection; - Case study; assessment of forest depletion - Introduction to LiDAR. 			
Assessment	Formative assessment	Class lecture feedback Weekly tutorial/ GIS Lab use and MCQ Test Online discussion/ Focus group discussion (FGD) Field excursion	
	Summative assessment	Examination: 50% Coursework: 50% <ul style="list-style-type: none"> - Practical assignments (20%) - Practical exercises (20%) - Project presentation (10%) 	