

Module code	AW-2308		
Module Title	Atmospheric and Hydrological Processes		
Degree/Diploma	Bachelor of Arts (Geography, Environment and Development Studies)		
Type of Module	Major Option/ Breadth		
Modular Credits	4	Total student workload	8 hours/week
		Contact hours	4 hours/week
Prerequisite	None		
Anti-requisite	None		
Aims			
To acquaint students with a basic understanding of processes operating in the atmosphere and hydrosphere at local to global scale.			
Learning Outcomes:			
<i>On successful completion of this module, a student will be expected to be able to:</i>			
Lower order :	40%	<ul style="list-style-type: none"> - Describe how the primitive atmosphere was formed on earth and how it has changed over time. - Understand the Earth radiation budget. - Understand terrestrial components of the hydrological cycle and water balance 	
Middle order :	40%	<ul style="list-style-type: none"> - Analyse how basic state variable like pressure and density changes in atmosphere. - Analyse the processes behind global and local scale wind circulation - Analyse how different processes in atmosphere interact. 	
Higher order:	20%	<ul style="list-style-type: none"> - Synthesize data and create visual plots to identify and describe the different processes. - Visualise the circulation of ocean surface and deepwater currents on global scale. - Employ a variety of tools to examine different atmospheric and hydrological datasets available. 	
Module Contents			
<ul style="list-style-type: none"> - Primitive atmosphere formation and its change over time - Vertical structure of atmosphere - Earth radiation budget - Hydrological cycle - Clouds - Monsoon - Weather - Global air and ocean circulation 			
Assessment	Formative assessment	Regular tests with feedback	
	Summative assessment	Examination: 60%	
		Coursework: 40% <ul style="list-style-type: none"> - Essay (20%) - Practical assignment (10%) - Test (10%) 	