

Module code	SB-4320		
Module Title	Plant Ecophysiology		
Degree/Diploma	Bachelor of Science (Biology)		
Type of Module	Major Option		
Modular Credits	4	Total student Workload	8 hours/week
		Contact hours	6 hours/week
Prerequisite	SB-2207 Principles of Plant Physiology		
Anti-requisite	None		
Aims			
<p>This module is designed to increase the understanding of how plants respond to changes in the environment.</p> <p>The nature of plant growth, reproduction, survival, abundance and geographical distribution in response to different environmental conditions will be examined. Furthermore, students will learn to evaluate and analyse the overall physiological mechanisms of plants in relation to interactions with physical, chemical and biotic environments.</p>			
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"> - Explain the concepts and topics of plant ecophysiology - Describe the fundamental significance of specific plant traits and their evolutionary heritage 	
Middle order :	40%	<ul style="list-style-type: none"> - Relate survival, distribution, abundance and interactions of plants with environment and other organisms. - Discuss performance of plants under different habitat conditions - Conduct lab and field practicals, collect experimental data, interpret and discuss results 	
Higher order:	20%	<ul style="list-style-type: none"> - Interpret the overall physiological mechanisms of plants that underline ecological observations 	
Module Contents			
<ul style="list-style-type: none"> -Resource acquisition by plants: light, water and nutrients -Seed ecophysiology -Regeneration and growth responses in pioneer and late successional plant species -Ecophysiology of mangrove vegetation -Application of stable isotope techniques in plant productivity -Carbon sequestration -Whole plant nutrient-use efficiency and performance of plants under different environmental conditions 			
Assessment	Formative assessment	Tutorial assignments and feedback	
	Summative assessment	Examination: 60% Coursework: 40% <ul style="list-style-type: none"> - 4 practical reports (20%) - 1 group presentation (5%) - 2 class tests (15%) 	