

Module code	SB-2207		
Module Title	Principles of Plant Physiology		
Degree/Diploma	Bachelor of Science (Biology)		
Type of Module	Major Core		
Modular Credits	4	Total student Workload	8 hours/week
		Contact hours	6 hours/week
Prerequisite	None		
Anti-requisite	None		
Aims			
<p>This module is designed to introduce students to vital phenomena and functioning in plants. It will increase students' understanding on how growth, function and development of plants result from fundamental processes and responses in plants. Furthermore, students will learn to evaluate and analyse experimental data related to the processes and functions of plant growth, development and movements.</p>			
Learning Outcomes			
<i>On successful completion of this module, a student will be expected to be able to:</i>			
Lower order :	60%	<ul style="list-style-type: none"> - Explain the fundamental concepts and topics of plant physiology - Describe how fundamental processes affect growth, function and development of plants 	
Middle order :	30%	<ul style="list-style-type: none"> - Relate the key determining factors of plant growth and development - Conduct lab practicals related to plant physiology, collect experimental data, interpret and discuss results, and write practical reports 	
Higher order:	10%	<ul style="list-style-type: none"> - Follow lab procedures and protocols, work independently and develop competence in basic lab skills related to plant physiology - Interpret how plant growth and development results from specific processes and responses 	
Module Contents			
<ul style="list-style-type: none"> - Water balance of plant cells and tissues - Factors contributing to water potential - Overview of soil-plant-atmospheric-continuum - Solute and ion transport across plant membranes, cells and tissues - Mineral nutrition, deficiencies and plant disorders - Photosynthesis and light and carbon reactions - Phloem translocation, allocation and partitioning of photosynthates - Hormonal control of growth and development 			
Assessment	Formative assessment	Tutorial assignments and feedback	
	Summative assessment	Examination: 70% Coursework: 30% <ul style="list-style-type: none"> - 4 practical reports (20%) - 2 class tests (10%) 	