Module code	SB-2307		
Module Title	Principles of Plant Physiology		
Degree/Diploma	Bachelor of Science (Biology)		
Type of Module	Major Option		
Modular Credits	4	**Total student Workload**	8 hours/week
		Contact hours	2 hours/week lectures 4 hours/week practicals
Prerequisite	None		
Anti-requisite	None		

Aims

To introduce students to vital phenomena and functioning in plants which will increase students' understanding on how growth, function and development of plants result from fundamental responses.

Learning Outcomes

On successful completion of this module, a student will be expected to be able to:

Lower order :	60%	- Explain the fundamental concepts and topics of plant physiology - Describe how fundamental processes affect growth, function and development of plants
Middle order :	30%	- 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%	- 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

- 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	Weekly discussion on selected topics and lab practicals will be used to assess students' understanding
	Summative assessment	Examination: -60%
		Coursework: 40% - 4 practical reports (25%) - 2 class tests (15%)