

Module code	SB-4314		
Module Title	Biotechnology		
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-2211 Genetics		
Anti-requisite	None		
Aims			
This module is designed to introduce students to basic concepts of genetic engineering in a relatively non-technical way as a foundation for studying emerging roles and implications of biotechnology in agriculture, food, medicine, industry and ecology.			
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 biotechnology and genetic engineering - Recognise the basic tools and techniques of recombinant DNA technology - Describe the various roles and implications of biotechnology in agriculture, food, medicine, industry and ecology - Recognise bioinformatics 	
Middle order :	40%	<ul style="list-style-type: none"> - Analyse biotechnological data 	
Higher order:	20%	<ul style="list-style-type: none"> - Develop competence in bioinformatics skills - Work and learn independently 	
Module Contents			
<ul style="list-style-type: none"> - Ancient, classical and modern biotechnology - Basic principles of recombinant DNA technology - Microbial biotechnology - Plant and animal biotechnology - Aquatic biotechnology - Medical biotechnology - Bioinformatics -Bioremediation -DNA fingerprinting 			
Assessment	Formative assessment	Tutorial assignments and feedback	
	Summative assessment	Examination: 60%	
		Coursework: 40% <ul style="list-style-type: none"> - 5 practical assignments (25%) - 2 class tests (15%) 	