

Module code	SC-1221		
Module Title	Fundamentals of Organic Chemistry		
Degree/Diploma	Bachelor of Science (Chemistry)		
Type of Module	Major Core		
Modular Credits	4	Total student Workload	10 hours/week
		Contact hours	4 hours/week
Prerequisite	None		
Anti-requisite	TG-1201 Fundamentals of Organic Chemistry for Engineers		
Aims			
To provide students with sound knowledge on the fundamentals of Organic Chemistry and the chemistry of alkanes, alkenes and alkynes and to apply the theories, concepts and analytical ability in laboratory work.			
Learning Outcomes			
<i>On successful completion of this module, a student will be expected to be able to:</i>			
Lower order :	30%	- recognize the different types of functional groups in organic chemistry - describe the preparation and reactions of organic compounds with different functional groups	
Middle order :	60%	- perform designated experiments during laboratory sessions - apply theories and concepts learnt in the interpretation of experimental observations and results - interpret IR, NMR, MS spectra	
Higher order:	10%	- present experimental reports in a clear and concise manner - work independently or collaboratively as a team	
Module Contents			
- Fundamentals in organic chemistry: Structures and bonding, hybridization, properties of organic compounds with respect to their functional groups - Stereochemistry: Different types of isomers including stereoisomers - Selected organic compounds and their reactions: Alkanes, alkenes and alkynes, their synthesis, reaction mechanisms and spectroscopic properties			
Assessment	Formative assessment	Weekly Tutorial Sessions and Discussion	
	Summative assessment	Examination: 60%	
		Coursework: 40% - 3 Individual Practical Reports (20%) - 2 Individual Written Assignments (10%) - 2 Class Tests (10%)	