Access to Higher Education Unit

This unit forms part of an Access to HE Diploma. If delivering the graded version of this unit, please refer to the Provider Handbook for details on grading descriptors and the application of these across units within your programme.

Unit Title: Organic Chemistry

Graded Unit Reference Number: GA33CHE02

Ungraded Unit Reference Number: UA33CHE02

Module: Chemistry

Level: Three (3)

Credit Value: Thee (3)

Minimum Guided Learning Hours: 30

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand the IUPAC system of nomenclature for simple organic chemicals	1.1 Calculate the empirical formula of an organic compound and recall the meaning of the terms homologous series and functional group
	1.2 Name simple organic compounds included in this unit and represent these compounds using their molecular, structural and displayed formula
	1.3 Draw the structures of chain, position and functional group isomers
2. Know some of the properties and reactions of alkanes	2.1 State the use of alkanes
	2.2 Explain how alkanes are produced from crude oil
3. Know some of the properties and reactions of haloalkanes	3.1 Show the reaction mechanism of an alkane with a halogen
	3.2 Describe the polarity in the C-X bond and the mechanism of the reaction of primary haloalkanes with the nucleophiles OH^- and CN^-
	3.3 Describe the elimination mechanism for haloalkanes with KOH

4.	Know some of the properties and reactions of alkenes	4.1	Describe the structure of alkenes including isomers
		4.2	Outline the mechanism of electrophilic addition to alkenes with Br_2 and HBr and outline a test for unsaturation using Br_2
5.	Know some of the properties and reactions of alcohols	5.1	Classify alcohols as primary, secondary or tertiary and predict the products of oxidation
		5.2	Use a simple chemical test, such as Fehling's solution of Tollen's reagent, to distinguish between aldehydes and ketones
		5.3	Show how alkenes can be formed from alcohols by acid-catalysed elimination reactions (mechanism not required)