Access to H.E.
National Programme Unit

Unit Title:	Kinetics and Redox Systems		
Graded Unit Code:	GA33CHE13	Ungraded Unit Code:	UA33CHE13
Pathway(s):	Science and Engineering		
Module(s):	Chemistry		
Level:	3	Credit Value:	3
Valid from:	1st August 2019	Valid to:	31st July 2028

The following QAA grade descriptors must be applied if you are delivering the graded version of this unit:

1	Understanding of the subject
3	Application of skills
7	Quality

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
1. Know that reactions only occur when collisions take place between particles having sufficient energy	1.1 Explain the significance of activation energy in reactions
2. Understand the Maxwell-Boltzmann distribution of molecular energies in gasses	2.1 Draw Maxwell-Boltzmann curves for a sample of a gas at different temperatures
	2.2 Explain the effect of temperature on reaction rate using the above curves
	2.3 Use the Maxwell-Boltzmann curve to explain the effect of a catalyst on activation energy and rate of reaction
3. Know that each reaction has its own unique rate equation	3.1 Use given experimental data to construct rate equations of different reactions with varying orders of reaction
4. Know how $E^{\ominus}$ values are measured and used	4.1 Calculate the $E^{\ominus}$ value of a simple cell (e.g. Fe/Fe2+) from given data

LEARNING OUTCOMES	ASSESSMENT CRITERIA
The learner will:	**The learner can:**
	4.2 Apply Eº value to specified redox reactions (e.g. Cl2 and KI) to predict the feasibility of the reactions