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: Cell Metabolism

Graded Unit Reference Number: GA33BIO02

Ungraded Unit Reference Number: UA33BIO02

Module: Biology; Human Biology

Level: Three (3)

Credit Value: Three (3)

Minimum Guided Learning Hours: 30

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand the nature of metabolism and the role of ATP in metabolic processes	1.1 Distinguish the terms metabolism, anabolism and catabolism and give a range of examples
	1.2 Describe the structure of ATP and explain how ATP is involved in exothermic and endothermic reactions in the cell
2. Understand the importance of enzymes in metabolic processes	2.1 Explain the lock and key and induced fit hypotheses of enzyme action
	2.2 Explain the role of enzymes in metabolic processes
	2.3 Interpret data relating to the effect of temperature, pH or inhibitors on enzyme activity
	2.4 Explain the effect of temperature, pH and inhibitors on enzyme activity
3. Appreciate the complexity of metabolic pathways	3.1 Identify the main stages in aerobic and anaerobic respiration and the main products of each stage
	3.2 Explain the importance of co-enzymes in aerobic respiration and show how the different stages of respiration are linked

	3.3	Explain the difference in yield of ATP from anaerobic and aerobic respiration
	3.4	Explain the concept of oxygen debt