

# Access to H.E. National Programme Unit



Unit Title:	Cell Metabolism		
Graded Unit Code:	GA33BIO02	Ungraded Unit Code:	UA33BIO02
Pathway(s):	Health Science and Engineering		
Module(s):	Human Biology Biology		
Level:	3	Credit Value:	3
Valid from:	31 <sup>st</sup> July 2021	Valid to:	31 <sup>st</sup> July 2026

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

1	Understanding of the subject
2	Application of knowledge
5	Communication and presentation
7	Quality

LEARNING OUTCOMES	ASSESSMENT CRITERIA
<b>The learner will:</b>	<b>The learner can:</b>
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

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	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