

# Access to H.E. National Programme Unit



Unit Title:	Biological Molecules		
Graded Unit Code:	GA33BIO01	Ungraded Unit Code:	UA33BIO01
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. Recognise the building blocks for carbohydrates, lipids, proteins and nucleic acids and understand how these are combined to form larger organic molecules	1.1 Illustrate or construct molecular models of simple organic compounds
	1.2 Distinguish between the structural and molecular formulae of $\alpha$ -glucose, an amino acid, glycerol, a fatty acid and a nucleotide
	1.3 Show how small biological molecules combine to form larger molecules yielding water

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2. Understand how the function of proteins is related to their structure	2.1 Describe the levels of structure in proteins
	2.2 Explain the roles of hydrogen and ionic and covalent bonding in maintaining protein structure
	2.3 Relate the uses of globular and fibrous proteins to their structures
3. Understand how the function of DNA is related to its structure	3.1 Describe the levels of structure in DNA and explain why DNA molecules are so stable
	3.2 Explain how the self-replicating ability of the DNA molecule is related to its structure
	3.3 Explain data showing that the replication of DNA is semi-conservative
	3.4 Interpret data to find the sequence of amino acids resulting from the transcription and translation of a short length of DNA (minimum 15 bases)