

Biology Department

CfE Higher Human guide

Higher Human Biology is a challenging progression from the National 5 Biology Course.

Entry Requirements

The preferred entry level is a pass at National 5 Biology or, under exceptional circumstances, a pass at another National 5 science. This is to ensure that you are well prepared for the demands of the course and that you are doing a level which is appropriate for you.

The Course Content

The course consists of four units:

Unit 1 Human Cells	Unit 2 Physiology and Health	Unit 3 Neurobiology & Communication
<p>Subtopics:</p> <ul style="list-style-type: none">• Division & differentiation• Structure and replication of DNA• Gene Expression• Genes and protein in health and disease• Human genomics• Metabolic pathways• Cellular respiration• Energy systems in muscle cells	<p>Subtopics:</p> <ul style="list-style-type: none">• Structure and function of reproductive organs, gametes and their role in fertilisation• Hormonal control of reproduction• The biology of controlling fertility• Ante- and postnatal screening• The structure and function of arteries, capillaries and veins.• Structure and function of the heart• Pathology of cardiovascular diseases (CVD)• Blood glucose levels and obesity	<p>Subtopics:</p> <ul style="list-style-type: none">• Division of the nervous system and parts of the brain• Perception and memory• The cells of the nervous system and neurotransmitters at synapses• Communication and social behaviour
		<p>Unit 4 Immunology and Public Health</p> <p>Subtopics:</p> <ul style="list-style-type: none">• Non-specific defences• Specific cellular defences• Transmission & control of infectious diseases• Active immunisation and vaccination, and the evasion of specific immune response by pathogens

Continued →

Assessment

There are several pieces of assessment during this course similar to those of National 5.

- 1) Outcome 1 – Investigation (Assessment standards 1.1-1.6).
 - Conduct an investigation and produce a precise scientific report.

- 2) Outcome 2 –
 - **Assessment standard 2.1/2.2 'Key Area Test' (KAT).**
 - This assesses knowledge and understanding as well as problem solving skills. The problem solving skills covered are analysing, selecting, processing and predicting.

- 3) Assignment
 - You are required to research an aspect of biology and write about its effect on society and the environment. You are expected to select, analyse and present data in your work as well as to reference where your information came from.
 - This work is worth 20 marks, which is 16.7% of your final exam marks.

- 4) The final exam.
 - The paper is worth 100marks, 20 multiple choice, 80 extended answer questions. It will last 2.5 hours. The total exam mark is awarded out of 120 (assessment + exam).

You must pass all forms of assessment before you can receive a course award.