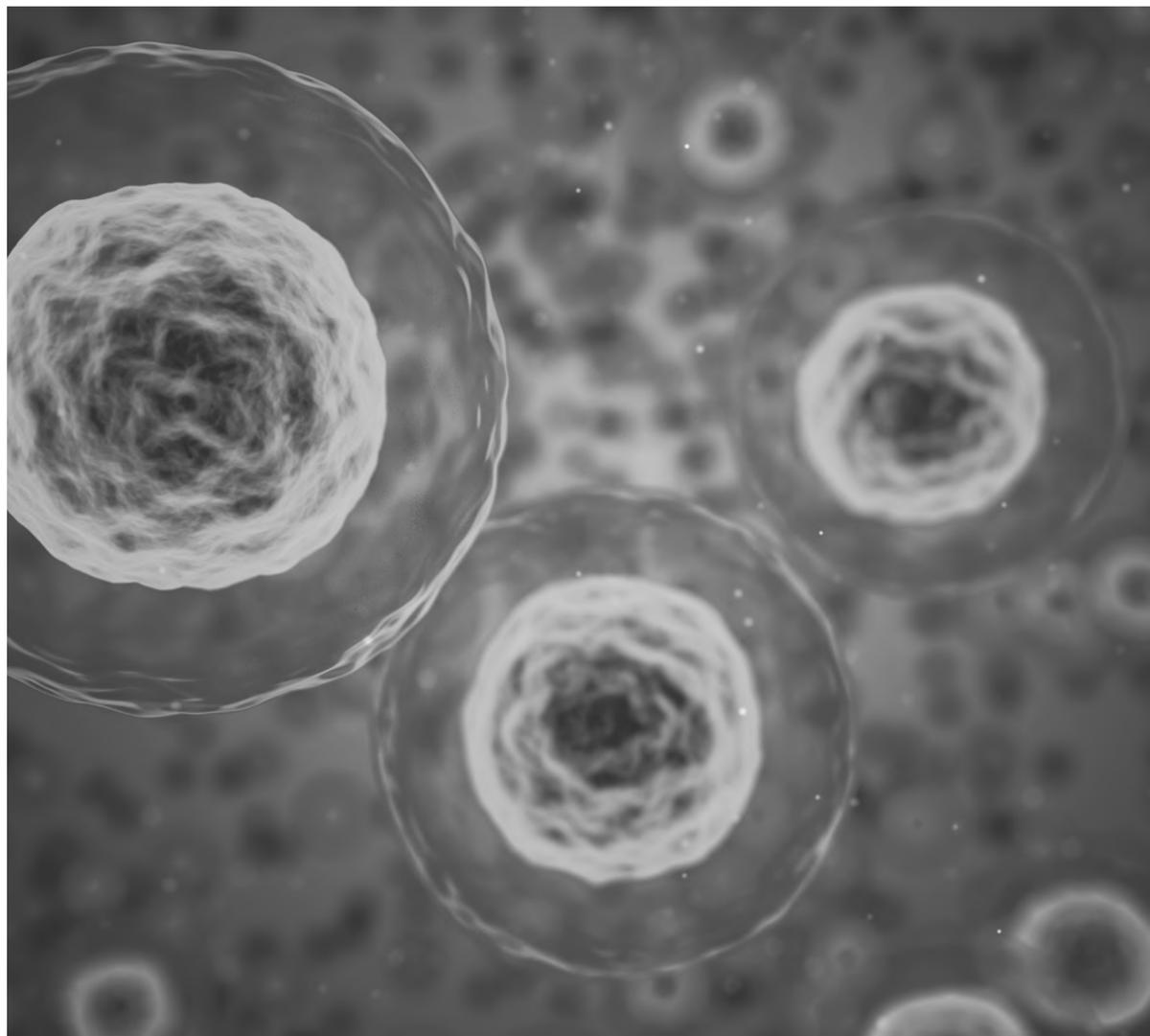


Human Biology

Higher

Recommended Entry Requirements

A to C at
National 5
Biology



Course Content

Human cells

- division and differentiation in human cells
- structure and replication of DNA
- gene expression
- mutations
- human genomics
- metabolic pathways
- cellular respiration
- energy systems in muscle cells

Physiology and health

- gamete production and fertilisation
- hormonal control of reproduction
- the biology of controlling fertility
- antenatal and postnatal screening
- the structure and function of arteries, capillaries and veins
- the structure and function of the heart
- pathology of cardiovascular disease (CVD)
- blood glucose levels and obesity

Neurobiology and immunology

- divisions of the nervous system and neural pathways
- the cerebral cortex
- memory
- the cells of the nervous system and neurotransmitters at synapses
- non-specific body defences
- specific cellular defences against pathogens
- immunisation
- clinical trials of vaccines and drugs

Skills Developed

- demonstrating knowledge and understanding of human biology by making accurate statements, describing information, providing explanations and integrating knowledge
- applying human biology knowledge to new situations, analysing information and solving problems
- planning and designing experiments/practical investigations to test given hypotheses or to illustrate particular effects
- carrying out experiments/practical investigations safely, recording detailed observations and collecting data
- selecting information from a variety of sources
- presenting information appropriately in a variety of forms
- processing information (using calculations and units, where appropriate)
- making predictions and generalisations from evidence/information
- drawing valid conclusions and giving explanations supported by evidence/justification
- evaluating experiments/practical investigations and suggesting improvements
- communicating findings/information effectively

Assessment

Exam Paper 1
25 marks

Exam Paper 2
95 marks

Practical Assignment
20 marks

Related Careers

A qualification in biology can lead to careers such as:

- Research scientist
- Pharmacologist
- Biologist
- Ecologist
- Nature conservation officer
- Biotechnologist
- Forensic scientist

Some famous faces who have Biology-related degrees include Steve Backshall, Mayim Bialik, Harry Hill, Lisa Kudrow and Ashton Kutcher!

