

Biology A Level

Who is the course for?

Biology is an exciting and stimulating course that covers how the human body functions from a cellular level up to the physiology that keeps us functioning as living organisms as well as the role of plants in maintaining life.

It explores the implications of recent scientific developments such as DNA technology for society and individuals. The roles and work of health professionals are also examined as well as some of the practical procedures they use, for example, CPR and renal dialysis. The course is packed with practical investigations designed to test the theory and explore scientific procedures.

What does the course involve?

You will need to be well organised, self-motivated, and able to work independently and most importantly be enthusiastic about Biology and the related subjects. The course is very biochemistry based and so a good understanding of Chemistry is required. You will also need to have good literacy and numeracy skills to be able to analyse data, conclude findings and evaluate procedures. You are expected to read around and further research the subject, allowing for a far deeper understanding. Independent study time should equal that of taught lesson time.

There is a **compulsory** residential field trip allowing for the completion of parts of the essential practical endorsement.

Modules include:

Development of practical skills in biology

The development of practical skills is a fundamental and integral aspect of the study of any scientific subject. This is covered in the 12 Core practical tasks

Foundations in biology

This module gives learners the opportunity to use microscopy to study the cell structure of a variety of organisms

Exchange and transport

Learners study the structure and function of gas exchange and transport systems in a range of animals and in terrestrial plants.

Biodiversity, evolution and disease

Learners study the biodiversity of organisms; how they are classified and the ways in which biodiversity can be measured. It serves as an introduction to ecology, emphasising practical techniques and an appreciation of the need to maintain biodiversity.

Communication, homeostasis and energy

Communication is also fundamental to homeostasis with control of temperature, blood sugar and blood water potential being studied as examples. Also, the biochemical pathways of photosynthesis and respiration are considered.

Genetics, evolution and ecosystems

This module covers the role of genes in regulating and controlling cell function and development. Heredity and the mechanisms of evolution and speciation.

Assessment Methods

A level Biology is assessed by three exams at the end of Year 13, which make up 100% of the qualification.

Progression Options

An A level Biology qualification can open up a wide range of careers and higher education courses in many areas including medicine and medical sciences, veterinary, dentistry, optometry, forensic science, pharmaceutical science, environmental health and food science, physiotherapy, nursing, biomedical science, law and teaching. It can also help gain direct entry into employment particularly into scientific sectors.

Awarding Body OCR