

Biology

Biology is offered as a one year AS course that can be extended to an Advanced GCE qualification by studying the second part of the course (A2).

Completed in Year 12

AS Level

Biological molecules

Cells

Organisms exchange substances with their environment

Genetic information, variation and relationships between organisms

Paper 1 All content and relevant practical skills 65 marks: short answer questions 10 marks: comprehension question

Paper 2 All content and relevant practical skills 65 marks: short answer questions 10 marks: comprehension question

Started in Year 12 and completed in Year 13

A-Level

Biological molecules

Cells

Organisms exchange substances with their environment

Genetic information, variation and relationships between organisms

Energy transfers in and between organisms

Organisms respond to changes in their internal and external environments

Genetics, populations, evolution and ecosystems
e control of gene expression

Paper 1 Any content from topics 1-4, including relevant practical skills 76 marks: a mixture of short and long answer questions

15 marks: extended response questions

Paper 2 Any content from topics 5-8, including relevant practical skills 76 marks: a mixture of short and long answer questions

15 marks: comprehension question

Paper 3 Any content from topics 1-8, including relevant practical skills

38 marks: structured questions, including practical techniques

15 marks: critical analysis of given experimental data

25 marks: one essay from a choice of two titles

Mathematical requirements

Overall at least 10% of the marks in assessments for Biology will require the use of mathematical skills to at least the standard of higher tier GCSE maths. These skills include: arithmetic and numerical computation, handling data, statistical tests, graphs and geometry and trigonometry.

Practical Skills Assessment

Assessment of practical skills is a compulsory requirement of the course of study for both AS and A-Level Biology. It will appear on all students' certificates as a separately reported result, alongside their overall exam grade.

- A minimum of six prescribed practical activities will be carried out for AS Biology and 15% of marks on exam papers will relate to practical work.
- A minimum of twelve prescribed practical activities will be carried out for A-Level Biology and 15% of marks on exam papers will relate to the practical skills carried out throughout the course.

The aims of the Course

- To develop knowledge and understanding of the concepts of Biology
- To develop an awareness of advances in technology related to Biology
- To recognize the value of Biology in society
- To be able to make sense of news items relating to Biological issues

- To understand how Scientists interact with each other, and with society at large, in making use of new discoveries

Relevance to Further Study

Biology as a science subject can be combined with a wide variety of subjects including Chemistry, Physics and Mathematics. It is accepted as a qualification for Medicine, Veterinary medicine, Dentistry, Pharmacy, Nursing and other medical careers. It is also accepted as a qualification for Biomedical sciences, Biology, Biochemistry, Applied Science, Agriculture, Horticulture, Botany, Forensic Science, Psychology, Ecology, Environmental science, Microbiology, Paleontology, Genetics, Cell and Molecular Biology, Anatomy, Biophysics, Marine Biology, Neurobiology, Physiology, Zoology and many others.

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