

BIOLOGY: CFE ADVANCED HIGHER

Why Biology?

Advanced Higher Biology covers a wide range of biological topics which build on concepts developed in Higher Biology or Higher Human Biology. The course content forms the basis for study in applied fields of Biology and further study or employment in areas related to Biology. It also enables you to develop understanding of the ways in which biological principles can be applied to the issues facing the individual and society and fosters positive attitudes to others and the environment. In addition, the course provides opportunities for you to improve your problem solving and investigative skills and develop your practical abilities.

Entry to the Course

This is at the discretion of the school but you would normally be expected to have attained one of the following

- Higher Biology or Higher Human Biology units or course at level C or above.

Course Outline

The course is made up of three units

Biology: Cells and Proteins (Advanced Higher)

In this unit you will study

- proteomics
- protein structure
- binding and conformational change
- membrane proteins
- detecting and amplifying a stimulus
- communication within multicellular organisms
- protein control of cell division

The study of protein is primarily a laboratory-based activity, so the Unit includes important laboratory techniques for biologists.

Biology: Organisms and Evolution (Advanced Higher)

In this unit you will study

- evolution
- variation and sexual reproduction
- sex and behaviour and parasitism
- The role of sexual reproduction and parasitism in the evolution of organisms.

This Unit covers suitable techniques for ecological field study. Methods of sampling and the classification and identification of organisms are introduced

Investigative Biology (Advanced Higher)

Learners will develop knowledge and understanding of the principles and practice of investigative biology and its communication. The Unit covers

- scientific principles and processes,
- Experimentation
- Critical evaluation of biological research.

This Unit can be integrated across the other Units of the Course.

Core Skills

- **H Problem Solving** (Critical Thinking, Planning and Organising, Reviewing and Evaluating)
- **H Numeracy** (Using Graphical Information)

Assessment

To gain the award you must complete the units which are internally assessed by your teacher/lecturer in accordance with SQA guidelines.

The course is assessed by an external examination, set and marked by the SQA. The investigation report is also externally assessed.

Course assessment structure

Component 1 — question paper 100 marks

Component 2 — project 30 marks

Total marks 130 marks

Progression

This Course or its Units may provide progression to:

- ◆ An HND/degree in a biology-based course or a related area
- ◆ A career in a biology-based discipline or related area
 - Animals Land & Environment
 - Hairdressing & Beauty
 - Health & Medicine
 - Manufacturing Industries
 - Science & Mathematics
 - Social, Caring & Advisory Services
 - Sports & Leisure.

Further advice and information on these options is available from your Subject Teacher, Home Area Principal Teacher and Careers Adviser.