GCE Advanced Level Biology

Exam Board: OCR

GCE Advanced Level Biology

Description:

The aims and objectives of the OCR GCE Advanced Biology are to enable students to:

- Develop essential knowledge and understanding of different areas of the subject and how they relate to each other
- Develop and demonstrate a deep appreciation of the skills, knowledge and understanding of scientific methods
- Develop competence and confidence in a variety of practical, mathematical and problem-solving skills
- Develop their interest in and enthusiasm for the subject, including developing an interest in further study and careers associated with the subject
- Understand how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society (as exemplified in 'how science works' by HSW)

Career paths:

Having A-level Biology can open up a world of opportunities in both university choices and career options.

Possible career choices that require A-level Biology include:

- Biological testing
- Biotechnology
- Food industry jobs
- Nutritionist
- Doctor
- Nurse
- Veterinarian
- Animal care
- Zoologist

Entry Requirements:

5 or more GCSE's at grade 5 or above (or BTEC equivalent) including grade 5+ in English and Maths, with a 7 (high 6 in some special cases) or higher in Combined Science. Alternatively, if a triple science student, then a grade 7 (6 with teacher recommendation) in Biology with 5+ in the other two science subjects.

Course details & Assessment:
During the course, students will study six modules. These will prepare them for examinations to be sat at the end of the course. This will involve practical exams and written answer examinations.

- Module 1 – **Development of practical skills in Biology** -1.1 Practical skills assessed in a written examination and 1.2 Practical skills assessed in the practical endorsement
- Module 2 – **Foundations in Biology** -2.1 Cell structure, 2.2 Biological molecules, 2.3 Nucleic acids 2.4 Enzymes 2.5 Biological membranes 2.6 Cell division, cell diversity and cell differentiation
- Module 3 – **Exchange and transport** - 3.1 Exchange surfaces and breathing, 3.2 Transport in animals, 3.3 Transport in Plants
- Module 4 – **Biodiversity and evolution and disease** - 4.1 Communicable diseases, 4.2 Biodiversity, 4.3 Classification and evolution, 4.4 Waves and 4.5 Quantum physics
- Module 5 – **Communication, homeostasis and energy** 5.1.1 Communication and homeostasis 5.1.2 Excretion as an example of homeostatic control 5.1.3 Neuronal communication 5.1.4 Hormonal communication 5.1.5 Plant and animal responses 5.2.1 Photosynthesis 5.2.2 Respiration
- Module 6 – **Genetics, evolution and ecosystems** 6.1.1 Cellular control 6.1.2 Patterns of inheritance 6.1.3 Manipulating genomes 6.2.1 Cloning and biotechnology 6.3.1 Ecosystems 6.3.2 Populations and sustainability.

Paper 1: Biological processes (01)
Paper 2: Biological diversity (02)
Paper 3: Unified biology (03)
Practical: Practical endorsement in biology (04)* (non-examined assessment)

For more information about Biology see Mrs Gasu or Mrs Williams
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