

Human Biology AS/A2

EXAMINATION BOARD

OCR – Human Biology

ENTRANCE REQUIREMENTS

GCSE Science Grade 'CC'

THE COURSE

The Human Biology specifications have been developed for candidates who wish to continue with a study of Biology beyond foundation level, specialising in those aspects of Biology, which relate particularly to humans.

This syllabus adopts an approach based on situations in the 'real world' e.g. the biomedical and caring professions, health, alternative medicine, conservation and social issues, current research, ethics, sports and leisure studies. This gives the subject relevance and interest. Assessment reflects this with some questions on the written papers set in these contexts. The coursework builds on the mark descriptors used for GCSE Science and a CASE STUDY paper is also used based on pre-release material, which the students then research, and revise for the written paper.

COURSE CONTENT

Before taking the AS qualifications, the following modules will be studied:

Module 2856 Blood, Circulation and Gaseous Exchange

In this module you will learn about blood cells, including blood cell typing and how the composition of the plasma can affect these cells. Stem cell technology and how this could change the future treatment or management of diseases is also studied. You study the heart and circulation and also diseases of the circulatory system such as coronary heart disease and deep vein thrombosis. The lungs and gas exchange are also studied including the structure of the cells and tissue and how they are affected by smoking.

Module 2857 Growth, Development and Disease In this module you will study the factors which affect growth and the role of health professionals in monitoring growth in children. The role of DNA in protein synthesis is studied as are genetic diseases and condition such as Turner's syndrome, which arise from chromosome mutations. The development of cancer is also studied including the role of health professionals in the detection, management and treatment of the disease. Infectious diseases are also studied, including the epidemiology of important diseases such as TB. The immune system is studied in some depth in addition to the issues surrounding vaccination programmes.

Module 2858 – (In two parts)

2858/01 – This is a case study. The students are given TWO short articles, one of which is based on an interview with a health professional. Students have two weeks to research the cases thoroughly prior to sitting a 45-minute written exam, based on the data in the pre-release material. This contributes 20% of the final AS mark.

2858/02 - This is an INVESTIGATION using the four skills the students will be familiar with from GCSE – notably PLANNING, IMPLEMENTING, ANALYSING and EVALUATING a piece of practical work. This will be set in the context of the syllabus and contributes 20% of the final mark.

YOU CANNOT PROGRESS FROM AS HUMAN BIOLOGY INTO A2 BIOLOGY. IT IS ESSENTIAL THAT STUDENTS DISCUSS THEIR REQUIREMENTS BEFORE COMMITTING TO HUMAN BIOLOGY.

Course Suitability

It is ideal for candidates who wish to broaden their curriculum. The contents relating to a wide range of 'real world' context make the syllabus of general interest and it complements and supports studies in many other subjects including:

Psychology - Health & Child Care - Social Studies - Sport Science - Other Sciences

The course is excellent preparation for vocational or academic courses in:

Biomedicine - Health Care - Social Science - Leisure Studies

The course is also useful where knowledge of human biology is needed within employment.