BIOLOGY

ADVANCED LEVEL COURSES AS/A2

# ST MARY'S COLLEGE

## INTRODUCTION

We will be offering the AQA course, which is modular.

The normal pattern will be for students to complete 3 modules in the year and obtain an AS certificate.

## AS LEVEL

### *Content*

The course consists of units:

| Module |
| --- |
| **UNIT 1 BIOLOGY AND DISEASE**<br>Cause of disease, enzymes and the digestive system, cells and movement in and out of them, lungs and lung disease, the heart and heart disease and immunity. |
| **UNIT 2 THE VARIETY OF LIVING ORGANISMS**<br>Variation, DNA and meiosis, genetic diversity, the variety of life, the cell cycle, cellular organisation, exchange and transport, classification evidence for relationships between organisms, adaptation and selection and biodiversity. |
| **UNIT 3 PRACTICAL AND INVESTIGATIVE SKILLS** |

### *How is the course delivered?*

The course is delivered as modules, each lasting 10-11 weeks. A variety of methods are used to build up the students skills and knowledge. This will include "chalk and talk" teaching, lectures, practical work, group work, research and problems solving.

Each A level set has four 70 minute lessons. Field work, including day trips, eg to the coast of Robin Hoods' Bay, also usually the chance to attend A level revision conferences.

## *Entry requirements*

To follow advanced level Biology successfully students should have gained a minimum of two grade C, at higher tier, in appropriate science subjects. It is expected that students will have studied Biology as a separate subject or will have followed the 'science and additional science' route. *Please note that the exact entry requirements for an AS programme depend upon the number and type of AS courses that you intend to take.*

## *What skills and interests do I need?*

You will have to be able to cope with the scientific nature of this course. This will involve a reasonable amount of underpinning chemistry and mathematics. As the course is assessed primarily by examination you will to be committed to revising for tests after each topic has been taught and for the module exams. It order to develop the knowledge and skills required you will have to complete regular homework tasks and also do your own independent study.

## *How does it build upon studies in Key Stage 4?*

AS modules study some topics covered at GCSE, but in greater depth and new topics like genetic engineering.

## *How is the course assessed?*

Students' progress is assessed regularly usually at the end of a topic. Each module is assessed by an end of module exam by the AQA. Practical skills are assessed by the Biology staff and the mark will go towards the final AS grade. The modules are assessed in January and June of each year. This allows exams to be retaken to improve grades.

## *Special equipment*

All equipment is supplied, except for basic calculators, which are essential.

# A2 LEVEL

## *Content*

The A2 course follows on from the AS and looks at new topics. It consists of 3 modules and lasts one year. As with all A2 courses, A2 Biology is more demanding than AS.

| **Modules** |
| --- |
| **UNIT 4 POPULATIONS AND ENVIRONMENT**<br>Ecosystems, effect of human activities on the ecosystem, genetic variation and evolution. |
| **UNIT 5 CONTROL IN CELLS AND ORGANISMS**<br>Stimulus response, nervous system, endocrine system, homeostasis, genes and genetic expression. |
| **UNIT 6 PRACTICAL AND INVESTIGATIVE SKILLS** |

## *How is the course delivered?*

The teaching methods used will be similar to those employed within the AS. However it will be expected that students will have developed as independent learners and thus be able to take more responsibility for their own learning.

## *Entry requirements*

A pass in AS Biology.

## *What skills and interests do I need?*

You will have to be able to cope with the scientific nature of this course. This will involve a reasonable amount of underpinning chemistry and mathematics. As the course is assessed primarily by examination you will to be committed to revising for tests after each topic has been taught and the module exams. It order to develop the knowledge and skills required you will have to complete regular homework tasks and also do your own independent study. For A2 you will have to gain an overview of the whole course to cope with the synoptic element.

## *How is the course assessed?*

Students' progress is assessed regularly, usually at the end of a topic.

Each module is assessed by an end of module exam by the AQA. Practical skills are assessed by the Biology staff and the marks will go towards the final grade.

The modules are assessed in January and June of each year. This allows exams to be retaken to improve grades.

The A2 marks will be combined with the marks achieved for the AS and lead to a full A level qualification.

## *Progression routes*

This is an ideal course for a wide range of careers including Medicine, Physiotherapy, Teaching etc and those wishing to study Biology. Most of our A level students' progress onto Higher Education courses. Students wishing to follow a degree course in Biology should also take A level Chemistry.

## *Further Information*

***For further information please contact John Wright.***

***Full specifications can be found at [www.aqa.org.uk](http://www.aqa.org.uk)***

***NOTES:***

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