# **Biology**

#### What will I need before taking this course?

Two Grades 6 or above in Combined Science. Grade 6 or above in Biology and one other Science if you studied separate Sciences at GCSE. A Grade 6 or above in GCSE English and a Grade 6 or above in Mathematics.

### Assessment and Grading

For A level, there are three examined modules;

- Biological processes (Worth 37%) 100 marks (2 hour 15 mins exam)
- Biological diversity (Worth 37%) 100 marks (2 hour 15 mins exam)
- Unified Biology (Worth 26%) 70 marks (1 hour 30 mins exam)
- Practical endorsement in Biology (non exam assessment, reported separately)

All papers are sat in June of Year 13, which count for 100% of the overall grade.

Currently an overall mark of 80% at A level represents a Grade A, a Grade E is 40%, with intervening grades at 10% intervals. (The A\* Grade is available with a 90% score).

# What can I do at the end of the course?

With a qualification in Biology you could go on to Further or Higher Education, studying Biology or one of the other sciences or related subjects. You could work in science-based industry such as pharmaceuticals, biotechnology or organisations which are obliged to have a concern for the environment. It is helpful for a career in the medical field, pharmacy and environmental science. Biology is also a well-respected subject in its own right and suitable for entry into a wide range of professions, as success within this field requires good analytical and data processing skills and the ability to express ideas clearly in written English.

#### What will I learn?

#### **A Level Course Outline:**

The content is split into six teaching modules:

# Module 1 – Development of practical skills in Biology

- 1.1 Practical skills assessed in a written examination
- 1.2 Practical skills assessed in the practical endorsement

#### Module 2 - Foundations in Biology

- 2.1.1 Cell structure
- 2.1.2 Biological molecules
- 2.1.3 Nucleotides and nucleic acids
- 2.1.4 Enzymes
- 2.1.5 Biological membranes
- 2.1.6 Cell division, cell diversity and cellular organisation

#### Module 3 – Exchange and transport

- 3.1.1 Exchange surfaces
- 3.1.2 Transport in animals
- 3.1.3 Transport in plants

#### Module 4 - Biodiversity, evolution and disease

- 4.1.1 Communicable diseases, disease prevention and the immune system
- 4.2.1 Biodiversity
- 4.2.2 Classification and evolution

# 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

# How will I learn?

Lessons involve both theoretical and practical activities. A commitment to discussion and study time outside lessons is essential for success in this course. You will be expected to attend the Biology Field Trip over a weekend.

AWARDING BODY	OCR
CONTACT FOR FURTHER DETAILS	Ms Myrtle—Head of Science