Chemistry

What will I need before taking this course?

Two Grades 6 or above in Combined Science. Grade 6 or above in Chemistry 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;

- Periodic table, elements and physical Chemistry
  (Worth 37%) 100 marks (2 hour 15 minutes exam)
- Synthesis and analytical techniques
  (Worth 37%) 100 marks (2 hour 15 minutes exam)
- Unified Chemistry
  (Worth 26%) 70 marks (1 hour 30 minutes exam)
- Practical endorsement in Chemistry
  (non exam assessment, reported separately)

All three papers are sat in June of Year 13, which count for 100% of the 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 Chemistry you could go on to Further or Higher Education, studying Chemistry 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. Chemistry 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 Chemistry
- Practical skills assessed in a written examination
- Practical skills assessed in the practical endorsement

Module 2 – Foundations in Chemistry
- Atoms, compounds, molecules and equations
- Amount of substance • Acid–base and redox reactions
- Electrons, bonding and structure

Module 3 – Periodic table and energy
- The periodic table and periodicity
- Group 2 and the halogens • Qualitative analysis
- Enthalpy changes
- Reaction rates and equilibrium (qualitative)

Module 4 – Core organic Chemistry
- Basic concepts • Hydrocarbons
- Alcohols and haloalkanes • Organic synthesis
- Analytical techniques (IR and MS)

Module 5 – Physical Chemistry and transition elements
- Reaction rates and equilibrium (quantitative)
- pH and buffers • Transition elements
- Redox and electrode potentials
- Enthalpy, entropy and free energy

Module 6 – Organic Chemistry and analysis
- Aromatic compounds
- Carbonyl compounds
- Carboxylic acids and esters
- Nitrogen compounds
- Polymers
- Organic synthesis
- Chromatography and spectroscopy (NMR)

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.

Before beginning the course in September, you would be well-advised to read up on atomic structure and the mole concept, which you will find in any library A level text. These are concepts which students find challenging in the first term!

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