

Chemistry

What will I learn?

Chemistry is the study of the properties and reactions of substances. It is a science subject, so practical work is an important element.

A Level

This is a two year course leading to the Advanced General Certificate of Education (GCE) in Chemistry. To achieve the qualification you will need to have been assessed on your performance in three exams.

In Year 1 of the course, you will study all three areas of Chemistry (physical, organic and inorganic) and build on your basic understanding from GCSE.

In Year 2, physical and organic concepts will be studied in greater depth. The ability to apply mathematic skills to solve quantitative chemistry problems will be an expectation.

The main skills you will develop during this course will be:

- Handling chemicals and equipment.
- Solving problems by analysis, research and experimentation.

Practical work will be spread throughout the course, although it is not evenly spread-out as some topics are more theoretical. For most practicals you will be able to work on your own. This will help you to develop your skills further. There will be 16 core practicals which will be required for the Practical Competency Measure. Knowledge of all core practicals may be tested within the written examination papers.

Assessment

The topics examined in each paper will be:

Paper 1

- Atomic Structure and the Periodic Table
- Bonding and Structure
- Redox
- Inorganic Chemistry and the Periodic Table
- Formulae, Equations and Amounts of Substance
- Equilibrium
- Acid-base equilibrium
- Energetics
- Transition metals

Summary

Level: A Level

Duration: 2 years

Qualification:
Advanced General
Certificate of Education
(GCE) in Chemistry

Entry Requirements:
6 GCSEs graded 5 and above including English at grade 5 and Mathematics at grade 6. Students must achieve a minimum of 6:6 in Combined Science or at least 6:6:5 in Triple Science (with Chemistry at grade 6 or above).

Paper 2

- Bonding and structure
- Redox
- Formula, Equations and Amounts of Substance
- Kinetics
- Organic chemistry
- Modern Analytical Techniques

Paper 3

Paper assessing all concepts, experimental methods including questions on core practicals.

What can I do next?

There are many careers that can be relevant to a Chemistry qualification such as Veterinary Science, Medicine, Dentistry, Pharmacy or Chemical Engineering at University. In addition, the following jobs are directly related to a degree in Chemistry: Analytical chemist, Biotechnologist, Chemical engineer, Healthcare scientist, clinical biochemistry, Forensic scientist, Nanotechnologist, Pharmacologist, Research scientist (physical sciences), Scientific laboratory technician, Toxicologist.

Work in Science-based industry, the Medical field or Agriculture will also require some experience in Chemistry.

Jobs where your degree would be useful include: Accountancy, Civil service fast streamer, Environmental consultant, Higher education lecturer, Lawyer, Management consultant, Nuclear engineer, Patent attorney, Science writer, Secondary school teacher.



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