



CHEMISTRY

A-Level Course Information



Qualification: Advanced Level Chemistry

Exam Board: OCR

Subject Leader: Dr S. Harding

Entry Requirements:

Minimum Entry Requirements:

5 x 5s

4 in English and Maths

Subject Entry Requirements:

6 in GCSE Chemistry if doing single sciences

Or 6,7 in GCSE Double Science

6 in GCSE Maths

Why study Chemistry?

Chemistry is often referred to as the central science, linking with all the other sciences and underpinning branches of technology. Even if you are not thinking about a career in any of these, the benefit of chemistry studies is endless. You will have: collated and analysed data, written scientific reports, used logical thought processes, applied prior knowledge to solve problems, learnt to pay attention to detail when conducting experiments and observations as well as gaining scientific knowledge of chemistry.

Degree Area

Chemical Science

Medicine & Medical Sciences

Biological Sciences

Anatomy and Physiology

Food Sciences



Preferred A-Level Subjects

Chemistry

Chemistry

Biology

Biology

Maths

Maths

Biology

Chemistry

Chemistry or Physics

Physics

Physics

Maths or Physics

Maths

Maths

Chemistry

What can I do with Chemistry after A-Level?

A-Level Chemistry is a must if you want to study any kind of medicine, chemical sciences, medical sciences and anatomy and physiology. It is also a recommended A-level for food science, and biological sciences and chemical engineering. There are a multitude of careers that you can do with a chemistry background from investor relations managers, publishing, patent attorney and policy advisers to governments.

Chemistry Extras

The Chemistry Department is dedicated to developing the whole individual, not just in terms of academic attainment but also with regard to their interest and enthusiasm for the subject. Students will have opportunities to go on trips to hear Chemists who are at the forefront of new and exciting research, trips to various universities to use degree-level labs, and trips that put the learning in lessons into context of real life (nuclear power station, National Portrait Gallery and work with the 'Science and Engineering in Arts Heritage and Archaeology' group). We also run a Chemistry day involving student to present their own research projects similar to science fairs run by the Nuffield Research Placement and PhD fairs.

What will I study?

Course Content

The Chemistry A-Level is split into six teaching modules:

Module 1 – Development of practical skills in chemistry

Practical skills are taught through-out the course and will be integral in each module.

Module 2 – Foundations in chemistry

Covering atomic theory, pushing past GCSE knowledge and exploring the fundamental parts of the universe.

Module 3 – Periodic table and energy

Using data to analyse trends in the periodic table.

Module 4 – Core organic chemistry

An introduction into the chemical world of hydrocarbons and synthesis of pharmaceutical drugs.

Module 5 – Physical chemistry and transition elements

Linking high level mathematics to equilibrium and rates of reactions. Developing logical thinking with challenging practical experiments.

Module 6 – Organic chemistry and analysis

Investigating and analysing the chemicals which make up life as we know it.

External Assessment

Paper 01 – Periodic table, elements and physical chemistry (2 hours and 15 minute written paper)

Covers content from modules 1, 2, 3 and 5

Paper 02 – Synthesis and analytical techniques (2 hours and 15 minute written paper)

Cover modules 1, 2, 4 and 6

Practical Endorsement

Coursework has been removed from the course and has been replaced with a Practical Endorsement. This is not externally assessed and works towards the development of practical competency for chemistry. Learners will complete a minimum of 12 assessed practical activities covering technical skills as listed in the specification, the Comberton Sixth Form Chemistry department run a practical heavy course and students complete more than the 12 practicals. Universities have stated that anybody wishing to undertake a Scientific Degree must have passed their Practical Endorsement.