

# Chemistry - A Level

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## Course Outline:

Chemistry helps us to understand the world in which we live and underpins a wide range of science-based degree courses and careers. Success with A level chemistry will prepare you for a future in chemistry, pharmacy, pharmacology, chemical engineering, biochemistry, biomedical sciences, medicine / veterinary and dentistry. For some undergraduate degrees A level Chemistry is an essential entry requirement. This course is designed to be stimulating, enjoyable and challenging.

Chemistry is for you if:

- you want impressive skills to show off to future employers, e.g data handling, analysis, problem solving, collaborative working.
- You are not afraid to get stuck on new concept and enjoy having to work it out!
- You're not as keen on writing—but you do enjoy methodically working through calculations.
- You are unsure what to do but enjoy chemistry and would like to keep your options open.

Year 1

Module 1: Development of practical skills in chemistry.

Module 2: Foundations in chemistry:

Atoms, ions and compounds, amount of substance, acids and redox, electrons and bonding & shapes of molecules

Module 3: Periodic Table and Energy:

Periodicity, reactivity trends, enthalpy, reaction rates and Equilibria.

Module 4: Core organic chemistry and analysis:

Basic concepts, alkanes, alkenes, alcohols, haloalkanes, organic synthesis and spectroscopy.

Year 2

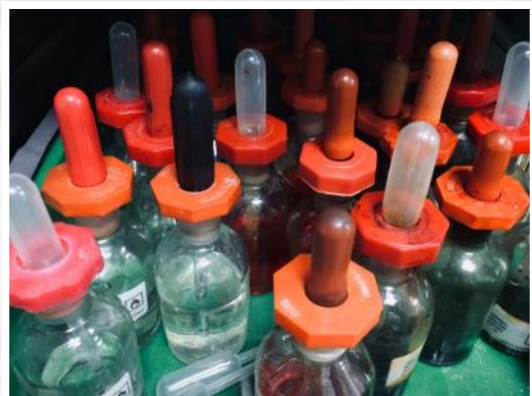
Module 5: Physical chemistry and transition elements:

Reaction rate, pH, Equilibria, Enthalpy, Entropy and Electrochemistry and Transition Metals

Module 6: Organic chemistry and analysis:

Aromatic compounds, carbonyl compounds, amines, organic synthesis pathways and instrumental analysis.

A level chemistry requires developing your logical thought, problem solving, precision and accuracy. Thinking about and questioning concepts whilst also manipulating chemical and mathematical equations are essential.



## Progression Post-18

Previous A Level Chemistry students have gone on to study a range of scientific and non-scientific courses at university. These include: medicine, dentistry, mathematics, biochemistry, engineering, architecture, languages, music, economics and veterinary sciences.

A Level Chemistry is a required A Level for most medicine, dentistry and veterinary courses.