



Chemistry

Is this course for me?

This course will appeal to those students who:

- Are willing to think around problems
- Have an interest in all of the science subjects
- Enjoy the challenge of using scientific knowledge in new situations

Units of Study

Foundations of Chemistry

- ◆ Atoms, compounds and molecules
- ◆ Acid-base and redox reactions
- ◆ Moles and equations
- ◆ Electrons, bonding and structure

Periodic Table and Energy

- ◆ The periodic table and periodicity
- ◆ Enthalpy change
- ◆ Group 2 and the halogens
- ◆ Reaction rates and equilibrium
- ◆ Qualitative analysis

Physical Chemistry and Transition Elements

- ◆ pH and buffers
- ◆ Redox and electrode potentials
- ◆ Enthalpy, entropy and free energy
- ◆ Reaction rates and Equilibrium (quantitative)
- ◆ Transition elements

Core Organic Chemistry

- ◆ Basic concepts
- ◆ Organic synthesis
- ◆ Hydrocarbons
- ◆ Analytical techniques (IR, MS)
- ◆ Alcohols and haloalkanes

Organic Chemistry and Analysis

- ◆ Aromatic compounds
- ◆ Organic synthesis
- ◆ Carbonyls, Carboxylic acids + Esters
- ◆ Chromatography + Spectroscopy
- ◆ Nitrogen Compounds
- ◆ Polymers

Practical Skills in Chemistry

This unit assesses practical and investigative skills developed within contexts encountered during the A Level Chemistry course. This practical skills unit is teacher assessed and externally moderated and involves three tasks; one qualitative, one quantitative and one evaluative.

Entry Requirements

Level 6 or above in GCSE Combined Science, or level 6 or above in GCSE Chemistry. Level 6 in GCSE Mathematics is also required.

What will this course prepare me for?

Chemistry combines well with other scientific disciplines in addition to Maths as an excellent basis for a degree in Medicine, Pharmacy or Pharmacology. The numerical, analytical and problem-solving skills you develop in Chemistry are recognised as very useful for careers in Accountancy and Computing.