

CHEMISTRY

▶ Entry requirements:

- ▶ Grade 6,6 at GCSE in Combined Science/ or Grade 6 in Triple Chemistry. In addition at least a grade 6 in Mathematics is required. **The prospectus explains the course content.**

Why study Chemistry?

A-level Chemistry attempts to answer the big question 'what is the world made of' and it's the search for this answer that makes this subject so fascinating. From investigating how one substance can be changed drastically into another, to researching a new wonder drug to save millions of lives, the opportunities that chemistry provides are endless.

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WHAT WILL I STUDY?

Physical chemistry

- ▶ atomic structure,
- ▶ amount of substance,
- ▶ bonding, energetics,
- ▶ kinetics,
- ▶ chemical equilibria
- ▶ Le Chatelier's principle
- ▶ thermodynamics,
- ▶ rate equations,
- ▶ the equilibrium constant
- ▶ electrode potentials
- ▶ Electrochemical cells

Inorganic chemistry

- ▶ periodicity,
- ▶ Group 2 the alkaline earth metals,
- ▶ Group 7(17) the halogens
- ▶ properties of period 3 elements and their oxides,
- ▶ Transition metals,
- ▶ Reactions of ions in aq

Organic chemistry

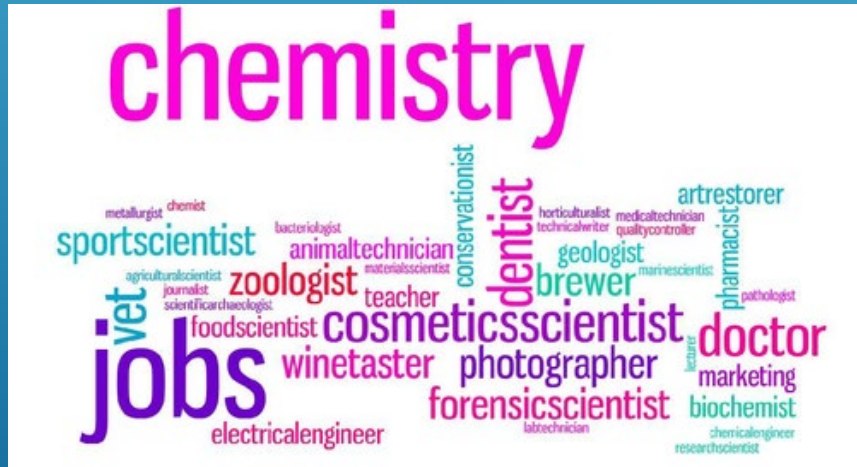
- ▶ introduction to organic chemistry,
- ▶ alkanes, halogenoalkanes, alkenes, and alcohols,
- ▶ organic analysis
- ▶ optical isomerism,
- ▶ aldehydes and ketones,
- ▶ carboxylic acids and derivatives,
- ▶ aromatic chemistry,
- ▶ amines, polymers, amino acids, proteins and DNA, organic synthesis, NMR spectroscopy,

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CAREER OPPORTUNITIES

- ▶ This A level subject will help you with a wide range of careers in any of the professions which place importance on the ability to think logically and develop practical skills:
- ▶ □ Analytical chemist • Chemical engineer • Clinical biochemist • Pharmacologist • Doctor • Research scientist (physical sciences) • Toxicologist • Chartered certified accountant • Environmental consultant • Higher education lecturer • Patent attorney •



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