



# ABBEGATE

Sixth Form College

## CHEMISTRY

Entry requirements:

Minimum 5 GCSEs Grade 4 - 9; minimum Grade 6 Biology or Core and Additional Science; minimum Grade 6 Maths and average GCSE Score 5.5\*

### STUDENT PROFILE

This course will appeal to those students who:

- have an interest in, and an enjoyment of, Chemistry
- enjoy investigative work, and the application of logical and critical thinking
- would like to use Chemistry to support other A-levels e.g. Biology or Physics
- would like to use Chemistry to progress on to further studies e.g. to study Medicine, Forensic Science or Veterinary Science.

### PROGRESSION

- You could follow a degree course in Chemistry, Environmental Science, Forensic Science, Medicine, Pharmacy, Engineering, Biological Science, Nursing and the Physical Sciences.
- Enter employment in a Science-related area such as pharmacy or as a laboratory technician
- Follow a Higher National Diploma in Chemistry and related programmes.

\*Information on how to calculate your average GCSE Score can be found at [www.abbeygatesfc.ac.uk/courses](http://www.abbeygatesfc.ac.uk/courses)

### STUDENT VIEW

"A-level Chemistry advances to an exciting stage. It involves using your initiative to understand the theories before putting them into practice yourself. You will begin to understand how important Chemistry is today, you will even delve into the finer points of how Chemistry works as a whole."

[www.abbeygatesfc.ac.uk](http://www.abbeygatesfc.ac.uk)

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## COURSE CONTENT

### Module 1 - Development of Practical Skills in Chemistry

This module will be taught throughout all of your Chemistry lessons. You will develop skills of planning, implementing, analysis and evaluation.

### Module 2 - Foundations in Chemistry

You will study ideas that will underpin the whole A-level course. Areas of study include the mole and chemical calculations, atomic structure and bonding, acid-base and redox reactions.

### Module 3 - Periodic Table and Energy

You will study the Periodic Table and periodicity, including groups 2 and 7, enthalpy changes, and reaction rates and equilibrium.

### Module 4 - Core Organic Chemistry

You will study the basic organic chemistry of hydrocarbons, alcohols and halogenoalkanes. You will also learn about the synthesis and analysis of these molecules.

### Module 5 - Physical Chemistry and Transition Elements

You will study physical chemistry including: reaction rates and equilibrium, pH and buffers, enthalpy, entropy and free energy, redox and electrode potentials, and transition elements. In this module you will cover topics quantitatively, having only studied them qualitatively previously.

### Module 6 - Organic Chemistry and Analysis

You will study more complicated organic chemistry than in Module 4, including aromatic compounds, carbonyl compounds, carboxylic acids and esters, nitrogen compounds and polymers. You will learn advanced organic synthesis and analysis.

### Practical Endorsement

Throughout the A-level course you will complete tasks and collect a folder of evidence towards the A-level Practical Endorsement. This is a pass/fail element.

