

A Level Chemistry

Ofsted Outstanding Provider

Course Level: Level 3 | **Campus: Stafford** | **Subject Type: Science & Maths**

Course Overview:

Chemistry is everywhere and is an ever evolving and dynamic industry. New breakthroughs in fields such as genetics, biochemistry, medicine and pharmacy, materials science (including nanotechnology), forensics, the environment and next generation computer hardware are all driven by chemistry.

What's Covered:

The subject investigates the nature of the materials that surround us and the interplay of different forms of energy with those materials. In our homes, workplaces, hospitals and leisure facilities we continually encounter products which do not occur naturally but are made by chemists: plastics, dyes, medicines, safe supplies of water, food, clothes made of textiles created from oil, to name a few. However, chemistry is not just used to understand man-made stuff, it is essential to understand the behaviour of biological molecules and essential for our understanding of climate change and the development of new technologies. A Level Chemistry aims to develop your awareness and knowledge of these processes and products, and your practical scientific skills, at a level suitable for progression to Higher Education or to vocational work such as apprenticeships.

You will be expected to study independently and to complete a minimum of one homework per week and you will receive regular feedback on your performance. The course consists of a broader selection of fundamental Chemistry concepts which build on ideas learned at GCSE, with practical sessions closely linked to the theory taught in lessons developing your grasp of the theoretical concepts covered. You will learn through a varied programme of laboratory and practical work, lectures, discussions and team activities in our well-equipped specialist laboratories. During the first two weeks of the course you will work through an induction period which will culminate in an Initial Assessment that will be used to assess your suitability for the remainder of the course.

A Level Chemistry combines well with A Level Biology, Physics, Maths, Further Maths and our brand new A+ Certificate in Engineering (equivalent to one A Level). We strongly recommend that Chemistry is studied alongside at least one other STEM subject from the list above.

100%

pass rate

75%

achieved A*-B in 2026

Entry Requirements:

You will need a minimum of five GCSEs at grade 5 or above. You should also have a GCSE grade 6 or above in Chemistry or grade 6-6 in Combined Science and grade 6 in Maths. An average GCSE point score of 6.0 is also needed.

Assessment Information:

Paper 1 Content:

- Module 1: Development of practical skills in chemistry / Practical skills assessed in a written examination / Practical skills assessed in the practical endorsement.

- Module 2: Foundations in chemistry / Atoms, compounds, molecules and equations / Amount of substance / Acid–base and Redox reactions / Electrons, bonding and structure.
- Module 3: Periodic table and energy / The periodic table and periodicity / Group 2 and the halogens / Qualitative analysis / Enthalpy changes / Reaction rates and equilibrium (qualitative).
- Module 5: Physical chemistry and transition elements • Reaction rates and equilibrium (quantitative) / pH and buffers / Enthalpy, entropy and free energy / Redox and electrode potentials / Transition elements.

Paper 2 Content:

- Module 1: Development of practical skills in chemistry / Practical skills assessed in a written examination • Practical skills assessed in the practical endorsement.
- Module 2: Foundations in chemistry / Atoms, compounds, molecules and equations / Amount of substance • Acid–base and Redox reactions / Electrons, bonding and structure.
- Module 4: Core organic chemistry / Basic concepts / Hydrocarbons / Alcohols and haloalkanes / Organic synthesis / Analytical techniques (IR and MS).
- Module 6: Organic chemistry and analysis / Aromatic compounds / Carbonyl compounds / Carboxylic acids and esters / Nitrogen compounds / Polymers / Organic synthesis / Chromatography and spectroscopy (NMR).

Paper 3 Content: all of the above modules.
Throughout the course you will carry out a range of practicals to support your learning, these will also provide evidence for the Practical Endorsement.

Fees and Financial Support:

This course is free for anyone aged 16 – 18.

College Maintenance Allowance (CMA):
Anyone with a gross household income under £35,000 can receive financial support to cover college related costs such as transport, meals, course equipment and uniform. Bursary support is based on individual circumstances and will be allocated to best suit your individual needs. A range of other financial support is available depending on your personal circumstances. For more details visit nscg.ac.uk/finance

Progression:
A Level Chemistry is accepted as an entry qualification for Higher Education and is an excellent basis for careers in science, medicine, veterinary science, pharmacy, chemical engineering and finance. On a personal level, chemistry allows you to begin to understand how all the substances surrounding us were formed and why they possess their individual properties.

What else do I need to know?
Think of what you're capable of. Then think beyond it.

Step up to a top university or move into a competitive programme like Medicine or Law with our Honours Programme. Perfect for ambitious and high-achieving students.

The Honours Programme is an additional pathway for students whose aspirations are to progress onto highly competitive courses at top universities, such as those in the Russell Group. Once accepted onto the programme, you'll be expected to commit extra time every week to this intensive support pathway.

Find out more
here

How do I find out more?

If you wish to find out more you can email Jo Cook, Subject Lead:
joanna.cook@nscg.ac.uk