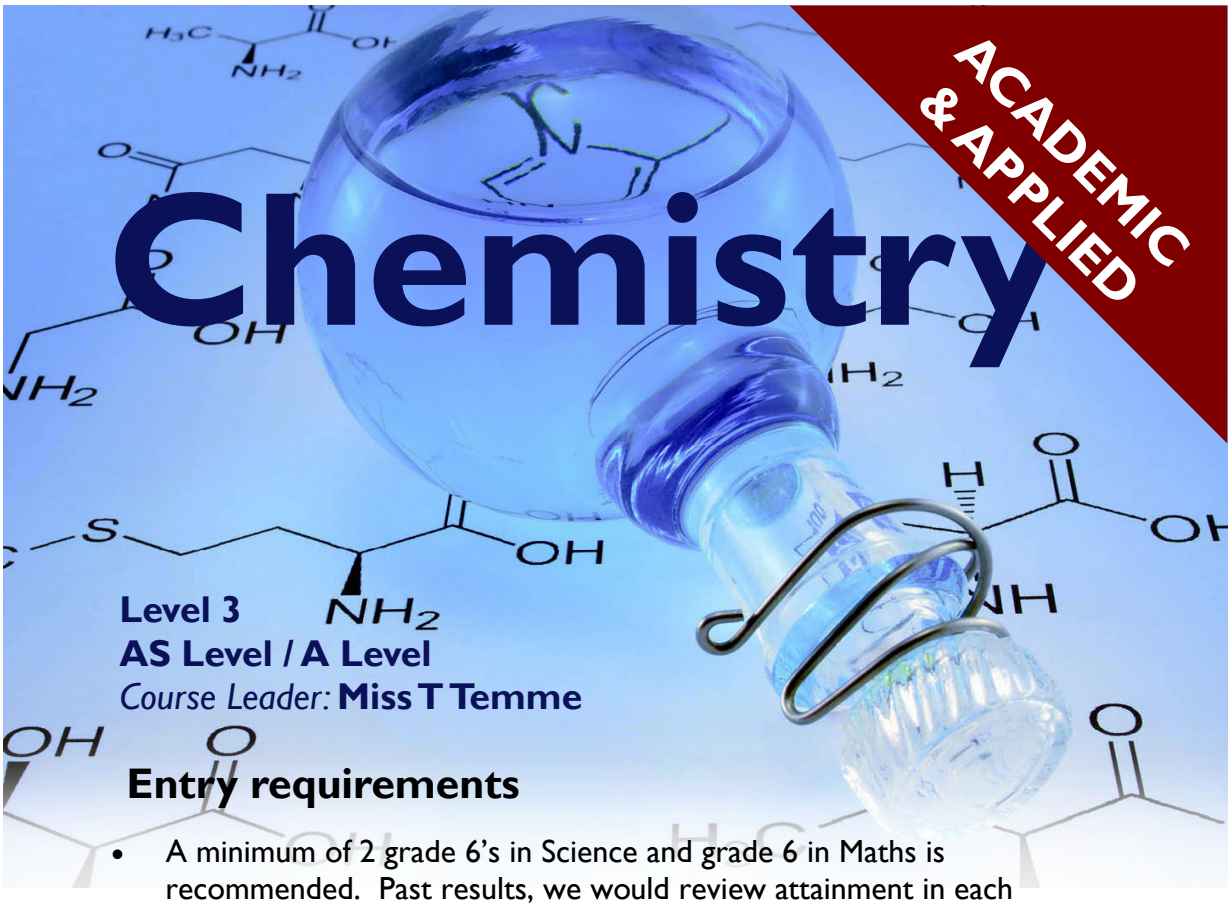

Entry requirements

- A minimum of 2 grade 6's in Science and grade 6 in Maths is recommended. Past results, we would review attainment in each scientific discipline
- Good problem solving skills
- The ability to handle chemicals safely and neatly
- An interest in the world around you

Why choose this course?

Are you interested in the world around you? Would you like to know more about how to develop fuels of the future? Have you ever wondered why different dyes are different colours? How do we know what stars are made of? How we can make polymers strong enough to withstand bullets or weak enough to dissolve in our mouths?

Chemistry is the science of the future and by studying Chemistry you will not only answer these questions and many more, but also develop excellent analytical and problem solving skills. These will make you an asset not only to employers in the chemical industry, but also in professions such as law and accountancy.

This course offers an exciting and varied course for those who are interested in understanding the science behind many topical issues such as global warming, developing new fuels and medicines. Chemistry is a very attractive subject to many employers and Universities view people with A Level Chemistry as having proven themselves to be highly literate, numerate, and capable of understanding complex ideas and developing technical practical skills. The development of our economy depends to some extent on our chemistry experts, and there is currently serious shortage of good chemists in academia and industry. The world needs more chemists to help solve many current issues!

Web Links

http://www.rsc.org/

Course content

What does the course involve?

A Level

Units include:

- Formulae, equations and amounts of substance
- Atomic structure
- Bonding and structure
- Energy in reactions
- Redox
- Inorganic chemistry and the periodic table
- Organic chemistry
- Modern analytical techniques
- Reaction Kinetics and equilibrium

Practical Endorsement

Students will be awarded a separate endorsement of practical skills, which will be assessed by teachers. This will not be graded. If students pass, it will be reported on their certificates.

In order to develop the necessary skills, knowledge and understanding, students studying biology, chemistry and physics will be required to have carried out a minimum of 12 practical activities, which will contribute towards the Practical Endorsement. These skills, knowledge and understanding will also be assessed in written examinations. Some of the techniques you will use are listed below:

- measure pH using pH charts, pH meter and pH probe on a data logger
- carry out titration, using burette and pipette
- carry out distillation and heating under reflux,
- carry out tests for ions and organic functional groups
- carry out filtration, including use of fluted filter paper, or filtration under reduced pressure
- use volumetric flasks to accurately making up a standard solution
- use acid-base indicators in titrations of weak/strong acids with weak/strong alkalis
- purify a solid product by recrystallization
- purify a liquid product, including use of separating funnel
- use melting point apparatus
- use thin-layer or paper chromatography
- set up electrochemical cells and measure voltages
- safely and carefully handle solids and liquids, including corrosive, irritant, flammable and toxic substances
- measure rates of reaction by at least two different methods

Possible career pathway

Careers in medicine, veterinary science, pharmacy, the chemical industry, chemical engineering, law, accountancy and a wide range of other careers. Research and development in many exciting and relevant fields.

Note: This is our current offer which is subject to change