

GCE Advanced Level Chemistry



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Description:

The aims and objectives of the Edexcel GCE Advanced Chemistry are to enable students to:

- Recognise patterns and explain them.
- Develop new theories and how they were discovered.
- Practical investigations.
- Analyse and interpret results.
- Analyse the effect of chemistry in the world of today and tomorrow.
- Explore new areas of chemistry that cannot be explained using theories taught at GCSE.

Throughout the progress of the course, we aim to develop learners who exhibit initiative, ideas, independence of mind, an ability to examine problems and investigative skills. Pupils will also be introduced to more advanced practical skills, preparing them for further study and careers within the Science industry.

Career paths:

A qualification in Chemistry provides students with enquiring skills, practical skills as well as knowledge-based skills. Chemistry students can use these skills in a number of different ways, by going on to:

- Study degree courses in Chemistry, Medicine, Brewing, Biochemistry, Forensic science, Medicinal Chemistry, Textile Chemistry, and the Oil industry.
- Health related careers, such as Pharmacy
- Careers using their scientific background, such as laboratory work
- Chemistry develops enquiring skills, practical skills as well as knowledge-based skills.

Entry Requirements:

5 or more GCSE's at grade 5 or above including grade 5+ in English and Maths, with a 7 (6 in some special cases) or higher in Combined Science. Alternatively, if a triple science student then a grade 7 (6 with teacher recommendation) in Chemistry with 5+ in the other two science subjects.

Course details & Assessment:

During the course, students will study a number of topics modules. These will prepare learners for exams to be sat at the end of the course.

Year 1

- Topic 1: Atomic Structure and the Periodic Table
- Topic 2: Bonding and Structure
- Topic 3: Redox 1
- Topic 4: Inorganic Chemistry and the Periodic Table
- Topic 5: Formulae, Equations and Amounts of Substances
- Topic 6: Organic Chemistry I
- Topic 7: Modern Analytical Techniques I
- Topic 8: Energetics I
- Topic 9: Kinetics I
- Topic 10: Equilibrium I

Year 2

- Topic 11: Equilibrium II
- Topic 12: Acid-Base Equilibria
- Topic 13: Energetics II
- Topic 14: Redox II
- Topic 15: Transition Metals
- Topic 16: Kinetics II
- Topic 17: Organic Chemistry II
- Topic 18: Organic Chemistry III
- Topic 19: Modern Analytical Techniques II

Paper 1: Advanced inorganic and Physical Chemistry (30%) (1 hour 45 minutes)

Paper 2: Advanced Organic and Physical Chemistry (30%) (1 hour 45 minutes)

Paper 3: General and Practical Principles in Chemistry (40%) (2.5 hours)



For more information about Chemistry see Mrs Cowap-Whiskin or Mrs Mernagh
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