

CHEMISTRY

Advanced Level Subject Guide

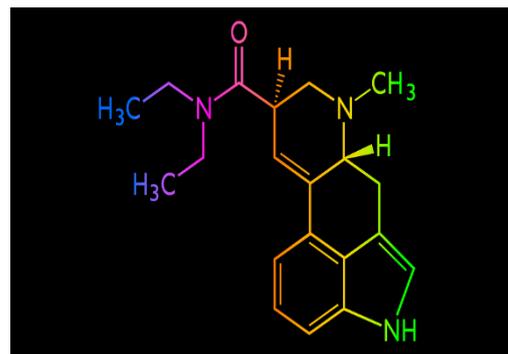
Exam Board: AQA

COURSE OVERVIEW – Why Study Chemistry?

Chemistry is what is called a gateway or enabling subject. This means that a significant number of degree and apprenticeship routes beyond A-level studies specifically require A-level chemistry. At last count over 100 specific degrees required A-level chemistry and over 200 combined degrees where chemistry was needed for a second specialism.

All of the examinations are at the end of the two year course.

20% of the total A-Level marks require the use of Higher tier GCSE mathematical skills.



ENTRY REQUIREMENTS

Students will be expected to have at least grade 6 (preferably grade 7 or above) in GCSE Science/Chemistry and a 6 in GCSE Mathematics.

COURSE & EXAMINATIONS OUTLINE

PAPER 1: Inorganic and Physical Chemistry	PAPER 2: Organic and Physical Chemistry	PAPER 3: Practical Skills, Data Handling & Synopsis
CONTENT <ul style="list-style-type: none"> Inorganic chemistry Relevant practical skills Relevant physical chemistry topics: <ul style="list-style-type: none"> Anatomic structure Amount of substance Bonding Energetics Equilibria Acids and bases Redox 	CONTENT <ul style="list-style-type: none"> Organic chemistry Relevant practical skills Relevant physical chemistry topics: <ul style="list-style-type: none"> Amount of substance Bonding Energetics Equilibria Kinetics 	CONTENT <ul style="list-style-type: none"> All content All practical skills
QUESTION TYPES & MARKS <ul style="list-style-type: none"> 105 Marks Mixture of short and long questions 	QUESTION TYPES & MARKS <ul style="list-style-type: none"> 105 Marks Mixture of short and long questions 	QUESTION TYPES & MARKS <ul style="list-style-type: none"> 40 Marks of questions on practical techniques and data analysis 20 Marks of questions testing across the specification 30 Marks of multiple choice questions



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SUBJECT CONTENT

You can see the detailed subject content in the A-level specification at:

<https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-7404-7405-SP-2015.PDF>

Practical

AQA provide a list of practical activities that students must carry out. Exam questions will be based on these practical components.

Course Structure

AQA have arranged the specification into the traditional three branches of physical, inorganic and organic chemistry.

YEAR 1 of A-Level Chemistry

Physical Chemistry

Including atomic structure, amount of substance, bonding, energetics, kinetics, chemical equilibria and Le Chatelier's principle.

Inorganic Chemistry

Including Periodicity, Group 2 the alkaline earth metals, Group 7(17) the halogens.

Organic Chemistry

Including introduction to organic chemistry, alkanes, halogen alkanes, alkenes, alcohols, organic analysis.

PRACTICAL WORK

- There will be no internal assessment that leads to marks that contribute towards the A-level grade. In other words, no coursework or controlled assessment.
- Practical work will be assessed in the written papers. 15% of the total A-level marks will be for practical knowledge and understanding.
- A separate 'endorsement' of practical work will be assessed by teachers. This will not be graded. If students pass, it will be reported on their certificate, otherwise it will not be reported.

"A student who studies Chemistry will build on the knowledge and understanding of Chemistry developed at GCSE level. They will develop imaginative, logical and critical thinking skills and will learn to demonstrate their wider application of chemistry. To be successful at A-Level, students will have a good grasp of Mathematics and be able to use this Maths knowledge to solve problems."

