

# AS Level / A Level Chemistry (Full-Time/Part-Time)

The AS Level / A Level Chemistry a Full-time Further Education course designed for students who are interested in science and have aspirations to work as a chemist or within the field of chemistry. This is located in the Sixth Form Academy (SFA).

Chemistry is a fascinating subject and if you want insight into the workings of the world, then this is the right subject for you. You will pick up a vast amount of knowledge ranging from Radioactivity to Organic Chemistry and our effective laboratory sessions will provide you with knowledge of how to assess compounds and make products such as aspirin.

The course will also help learners to think analytically and logically. The College has one of the best-equipped departments in the area and a consistent record of excellent results.

The chemistry department are keen to expand students knowledge, and take the opportunity to visit universities on annual trips and carry out practical work to help bridge the gap between college and university. Studying chemistry will offer you a range of skills and open your horizons to a range of career opportunities.

Applying for AS Levels or A Levels? Click 'Apply Now' on any ONE of the subjects you are interested in studying. Complete the online application form, where you will be asked to specify your other two choices. Then book an Interview appointment to meet the tutors and discuss your preferred choices.

## **Entry Requirements**

A minimum of six GCSEs at grade C or above, including English and Maths. GCSE Maths Higher/ Intermediate Tier grade B required and Higher Tier Additional/Triple Science grade B required

## **Career Prospects**

The course provides a good foundation for further study of Chemistry, and related subjects including Medicine, Agriculture, Archaeology, Ecology, Engineering, Biochemistry, Geo Chemistry and many more in higher education.

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Academi Chwaraeon Llandarcy
Canolfan Ragoriaeth Adeiladwaith Maesteg
Coleg Castell-nedd
Coleg Y Drenewydd
Coleg Pontardawe

Afan College
Brecon Beacons College
Llandarcy Academy of Sport
Maesteg Construction Centre of Excellence
Neath College
Newtown College
Pontardawe College
Swansea Construction Centre























Canolfan Adeiladwaith Abertawe









#### **Course Modules**

AS

Unit 1: The language of Chemistry, Structure of Matter and Simple Reactions. Formulae and Equations, Basic Ideas about Atoms, Chemical Calculations, Bonding, Solid Structures, The Periodic Table, Simple Equilibria and Acid-Base Reactions.

Unit 2: Energy Rate and Chemistry of Carbon Compounds, 2.1 Thermochemistry, 2.2 Rates of Reaction, 2.3 The wider impact of chemistry, 2.4 Organic Compounds, 2.5 Hydrocarbons, 2.6 Halogen alkanes, 2.7 Alcohols and Carboxylic Acids, 2.8 Instrumental Analysis, Practical work is integrated throughout the course and questions may arise in the written papers.

#### A2

Unit 3: Physical and Inorganic Chemistry, Topic 3.1 Redox and Standard Electrode Potentials, Topic 3.2 Redox Reactions, Topic 3.3 Chemistry of the p-block, Topic 3.4 Chemistry of the d-block transition metals, Topic 3.5 Chemical Kinetics, Topic 3.6 Enthalpy Changes for Solids and Solutions, Topic 3.7 Entropy and Feasibility of reactions, Topic 3.8 Equilibrium Constants, Topic 3.9 Acid-Base Equilibria.

Unit 4: Organic Chemistry and Analysis, Topic 4.1 Stereoisomerism, Topic 4.2 Aromaticity, Topic 4.3 Alcohols and Phenols, Topic 4.4 Aldehydes and Ketones, Topic 4.5 Carboxylic Acids and their derivatives, Topic 4.6 Amines, Topic 4.7 Amino acids, peptides and proteins, Topic 4.8 Organic Synthesis and Analysis.

Unit 5: Practical – This is broken down into two tasks: Experimental task (5%), Practical methods and analysis written paper (5%).

#### Assessment

Unit 1: Written exam; 1 hour 30 minutes – 20% of qualification.

Unit 2: Written exam; 1 hour 30 minutes - 20% qualification.

Unit 3: Written examination: 1hr 45mins - 25% qualification.

Unit 4: Written examination; 1hr 45mins - 25% qualification.

Unit 5: Practical Assessment 10% qualification

#### **Additional Costs**

Lab coats and goggles are required for this course. Total cost: approximately £17.

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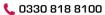




















### **STUDY MODE**

FΤ

### **LOCATION**

Neath College - 0330 818 8100

### **COURSE LENGTH**

2Y

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