



THE  
WORTHGATE SCHOOL  
CANTERBURY

# COURSE DESCRIPTOR

## UFP CHEMISTRY

### **SUBJECT OVERVIEW**

Chemistry is an important science as it relates well to all other sciences and to mathematics. Chemistry offers valuable training in many different skills such as communication, working with others and problem solving which are essential in a very wide range of professions. Students taking a science course should seriously consider Chemistry as one of their options.

### **PRIOR LEARNING REQUIRED**

An interest in, and a desire to study, Chemistry is essential. Students who are willing to spend time studying on their own will do very well and will enjoy the course. We aim to instil a deep interest in the subject, which can be maintained in courses of further education and beyond.

GCSE or equivalent

IELTS 5.5 or equivalent

### **EXAM BOARD**

CGS

## COURSE CONTENT

### Year 1

**MODULE 1** – Atomic structure, mole theory, structure and bonding, acids and bases, shapes of covalent molecules and the trends of the periodic table.

**MODULE 2** – Redox chemistry, elements and trends of groups 2, 7 and the transition metals.

**MODULE 3** – Organic chemistry and analysis: (Alkanes, alkenes, alcohols, aldehydes, ketones, carboxylic acids, esters and halogenoalkanes.), modern analytical techniques (Mass and infrared spectrometry), the transition metals and their compounds.

**MODULE 4** – Energetics, chemical kinetics, chemical equilibrium and acid – base equilibrium

## ASSESSMENT

Formal internal assessments take place regularly about once every half term and homework is set on a regular basis.

Regular assessment tests take place throughout the course. The first examination is in January and is based on the Foundations of Chemistry and the final examinations (papers 2 and 3) at the end of the course.

There are 3 assessed pieces of coursework which is completed throughout the year and comprises of 40% of the total mark. Coursework, homework, and past examination papers are set frequently, and students are regularly given feedback as to their progress.



Paper	Length of paper	Weighting
Paper 1 MCQ exam The basics of science	20 marks 30 minutes Multiple choice paper	7% of UFP
Paper 2 MCQ exam Beyond the basics of science	30 marks 45 minutes Multiple choice paper	13% of UFP
Paper 3	90 marks 2 hours 45 minutes Structured questions	40% of UFP

Coursework	Description	Weighting
1	Poster Relating a subject matter from Chemistry to another subject	15% of UFP
2	Presentation Presenting a selected Chemistry topic	10% of UFP
3	Controlled assessment Practical and examination Structured questions	15% of UFP

## TEXTBOOKS/REVISION GUIDES

Title	ISBN	Author
Advanced Chemistry for you	978 -140-852736 -8.	Lawrie Ryan
OCR A level chemistry	978-1-4718-2706-8	John Older and Mike Smith

Summaries of each unit, your notes and past examination papers will be your major source of revision. There are revision guides for both AS and A2. Kerboodle is a useful online resource. Revision guides and workbooks will be offered by your teacher at a discounted price.

## HIGHER EDUCATION PATHWAYS

Chemistry opens a large range of career options as, together with the other sciences, it is important for Industry, Commerce, Manufacturing, Teaching, Pharmacology, Dentistry, and the Medical Profession, as well as many other occupations.

Previous students have studied:

St Andrews University – Chemistry

University of Bath – Pharmacy

University of Dundee – Biochemistry

## COMPLEMENTARY SUBJECTS OF STUDY

Biology, Psychology, Maths, Physics.

## CURRICULUM DIRECTOR

Ms. Sue Chubb

